

Developing a model to measure business performance for private business schools

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ABSTRACT

The South African public post-school education system is not able to absorb the increased in demand and this is an opportunity for private higher education institutions to assist and fill the skills gap. To do so private higher education institutions need a better understanding of the business environment and its role-players. Hence the primary objective of this study is to build a conceptual model to measure the business performance of a private higher education institution in South Africa. This study investigated the business performance measures that impact on a private higher education institution in South Africa. This study aims to analyse the higher education sector in South Africa and provide a basis to develop a model that would be relevant so that a private higher education institution can roll out this model to ensure successful business performance and ultimately ensure growth and sustainability. The study starts by reviewing the literature on higher education and private higher education in order to establish a broad theoretical framework to guide this study. After statistically ensuring that the respective theoretical measuring criteria selected do actually measure the specific business performance antecedents, the paper then presents a model to measure business performance in private higher education in South Africa. The final model has a total of fifteen business performance antecedents. These are: *Sales, Growth, Profitability, Technology, Customer, Innovation, Service, Leadership, Return on investment, Stakeholders, Society, Quality, Marketing, Communication, Legality*, and *General measures of business performance*. The study further established the reliability of each antecedent, measured in total by 85 criteria. A total of 250 questionnaires were distributed of which 247 were completed by private business school supervisors and managers and returned, signifying an effective response rate of 98.8%. Using a five-point Likert scale, the questionnaires were analysed and identified ten latent variables (or factors) using exploratory factor analysis explaining a cumulative variance 70.56%. They are *Regulatory compliance, Strategic communication, Educational technology stack, Strategic finance, Organisational Development, Customer orientation, Sales, Pricing, Socio political influence and Market focus*. The study also succeeded to simplify measuring performance by eliminating 26 questions with low factor loadings (<0.40) or those with strong dual-loadings from the questionnaire while retaining satisfactory reliability (Cronbach alpha 0.974), sample adequacy (0.926) and variance explained.

Due to the lack of studies in this regard in South Africa, the literature study as well as the efforts undertaken in this research study could provide valuable insights and basis to suggest a conceptual model that could measure business performance in private higher education. It is envisaged that this research contributes to this area of study and also make a limited contribution to the body of knowledge of business performance with particular reference to developing a model to measure business performance in private higher education in South Africa. In so doing the study contributes to discourse in higher education as well as private higher education within the politically charged South African context as well as providing managerial and business insights. The results of this study are of value to business school directors and managers as well as investors in private higher education to determine the business performance antecedents that lead to a successful private higher education institution. It is also of value to researchers and scholars who intend to further explore this avenue of business performance models.

Key terms: business performance, private higher education, higher education, performance, management, model, measurement

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LIST OF ABBREVIATIONS

CET	Community Education and Training Colleges
CHE	Council for Higher Education
DHET	Department of Higher Education and Training
DOE	Department of Education
GTER	Gross Tertiary Enrolment Rate
OECD	Organisation for Economic Co-operation and Development
PHE	Private Higher Education
PHEI	Private Higher Education Institution
SAQA	South African Qualifications Authority
TVET	Technical Vocational Education and Training colleges
UN	United Nations
UNFPA	United Nations Population Fund

CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Globalisation today, according to Moutsatsos (2018:21), is characterised by unparalleled global interconnectivity, integration and interdependence in all the business sectors. This includes the economy, social life, technology and information, culture, politics and even the ecology; all have an impact on every country on the globe today. No country is isolated from other countries' decisions across any of these spheres of influences and interdependence, and inter-country influences constantly impact on international business (and other) decision-making. In this regard, the impact of globalisation on the knowledge economy of Africa in particular plays a huge role in getting education to even the remotest parts of the continent. The ability of the knowledge economy to improve the social and economic lives of the people and at the same time boost the economy of the country has significantly transformed Africa to engage in competitive business ventures like education (Geldenhuys, 2018). Typical key components of the knowledge economy revolve around education, innovation, economic incentives and institutional regime, and information and communication technology which are key to the business success of any modern organisation (Tchamyou, 2017:1189). In this case, Lukovics and Zuti (2017:1-2) also add that a countries' assets such as knowledge or social capital, learning, innovation and technology are fundamental to the transformation and creating a competitive edge over other countries or societies and that this edge ultimately drives economic development. Here Geldenhuys (2018) pointed out that countries like Uganda, Kenya, Zambia and even Somalia are rolling out 4G and 5G communication systems in their competitive county quests. Universities also play a significant role in this regard by fostering research and development and to generation some new ideas and concepts.

The Global Competitiveness Report states that countries developed new strategies, dynamics and more innovative became to remain or become more competitive after the financial meltdown in 2008 (Dima et al., 2018:1706). This report further states that to be globally competitive, all twelve the pillars of competitiveness (institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication, and

innovation) are important for any country to be truly globally competitive and to reap the benefits of long term economic growth and development and prosperity. The consumption of knowledge and thus consolidating a country's position in the global market place which ultimately leads to sustainable development and progress of the country (Schwab, 2017:1, 23-24). (This study focusses on the "higher education" pillar of country competitiveness).

Throughout the centuries higher education has been central for scholarship, discovery and innovation. The desire to grow and develop has also led globally to the higher education sector playing a pivotal role in the world. Higher education, in terms of who can participate and succeed, has changed dramatically over the last few years. Currently, with the 4th industrial revolution, new methods and methodologies have been created to meet the new demands from industry and employers. Due to rapid changes in world the knowledge economy, research and specialised skills has resulted in higher education playing an important role in the economy in terms of economic and social development (Parker et al., 2018). New technologies in the 4th industrial revolution have also rekindled a revival in particularly higher education and enabled the development of new learning platforms and models (Levin, 2018:133). Institutions have evolved into centres for entrepreneurship where entrepreneurial incubators, research and discoveries are seen as vehicles to drive innovation (Becker et al., 2018:10). The rapidly changing higher education landscape in the modern world necessitates collaboration and sharing of ideas and innovations have become a central pillar. The World Higher Education Database estimates that there are more than 18 500 higher education institutions which are located in 186 countries to share ideas and collaborate with (Becker et al., 2018:12-13).

Participation in higher education has increased, and in 2018 the highest growth rates in higher education were recorded in African countries, albeit growing from a low enrolment base. A global assessment in the number of global enrolments in higher education, as reported by Calderon (2018), showed that the 214.1 million students in 2015 (base year) will grow to 250.7 million by 2020, to 377.4 million by 2030, and to a staggering 594.1 million by 2040. East Asia and the Pacific is anticipated to be a region with the highest volume and share of enrolments with an increase of 148.8 million (39.4% share) by 2030, and 257.6 million (43.4% share) by 2040. Noteworthy is the fact that North America and Western Europe, however, anticipates a decline of global enrolments since 2015 of 10.7% by 2030, and of 7.4% by 2040. Sub-Saharan Africa growth in enrolments in higher education will be strongest as countries advance and

strengthen their national systems of education which leads to increased completion rates in secondary education. It is anticipated that enrolments will grow from 7.4 million in 2015 to 8.8 million by 2030 and 21.7 million by 2040. Sub-Saharan African countries will be the new frontier for higher education. About 18 countries in Sub-Saharan Africa will feature in the top 50 population aged 18 to 23. Also, 32 of Sub-Saharan African will be ranked in the top 50 countries in terms of population growth for the 18 to 23 cohort. South Africa as a developing nation and the increased participation in higher education is a critical strategy for addressing the skills shortage, high unemployment rates and poverty.

According to the Green Paper for Post-School Education and Training from the Department of Higher Education and Training (DHET, 2012:X) many challenges still exist in South Africa's higher education. Although many advances and gains have been made since 1994, the post-school education in South Africa faces still gender, class, racial and other inequalities with regard to access to educational opportunities. One of the greatest challenges is that although there is a 99% (in 2016) literacy amongst young people between 15 and 24 years old (The World Bank 2018), few of them continues their education through the post-school system. Only 22% of students eventually achieve a college or university education (South African Market Insights, 2018). Figures 1.1 and 1.2 shows graduate numbers and youth literacy figures in South Africa.

Figure 1.1: Number of graduates 2012-2016

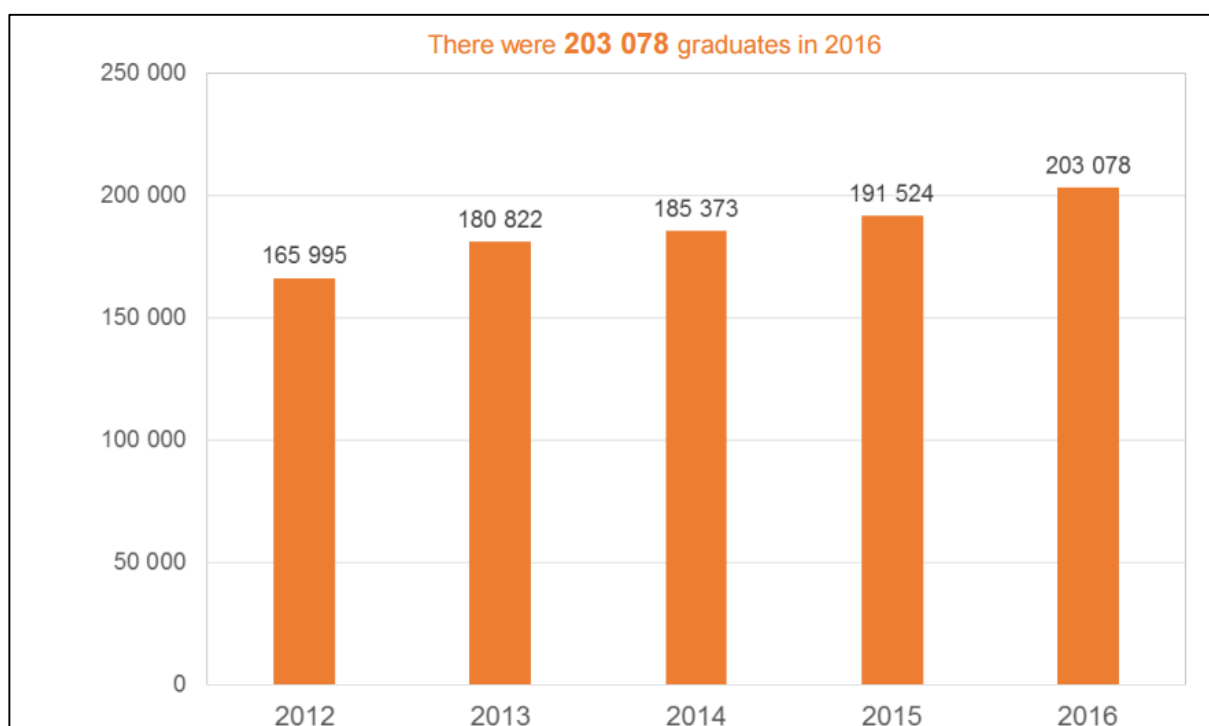
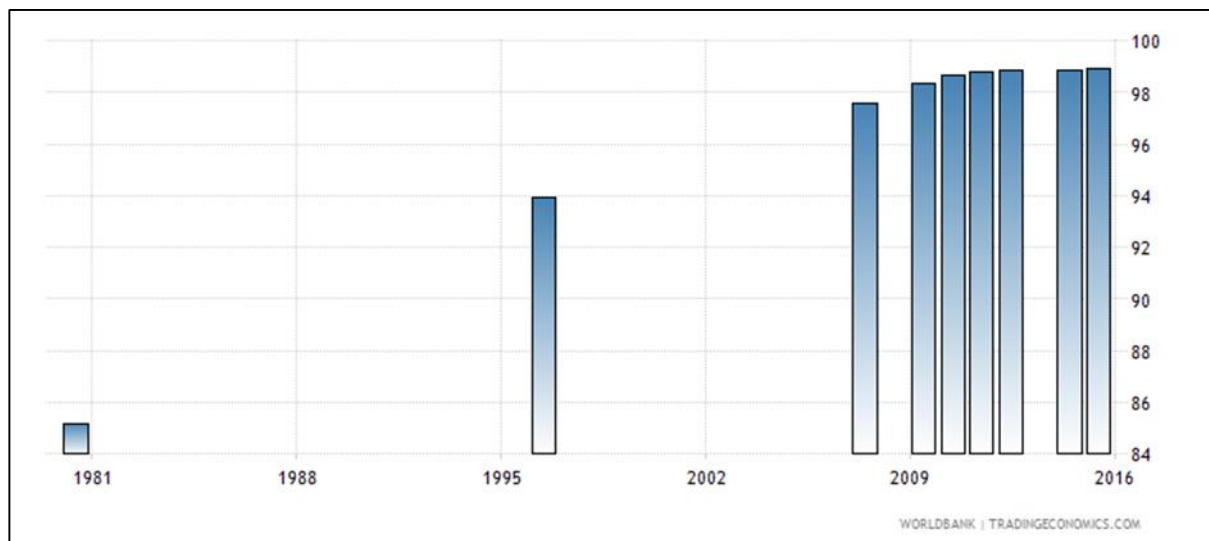


Figure 1.2 shows the improved youth literacy figures for South Africa. (Comparative pre-1994 figures are not available except for one measurement in 1981).

Figure 1.2: Youth literacy in South Africa



Source: The World Bank (2018)

Traditionally public institutions fielded the need for education. However, strong demand and population growth resulted in public institutions no longer being able to do so. This demand has led to a strong growth in private higher education. With the constraints that the South African government has in terms of resources allocation to public universities, private higher education institutions are filling the gap. In this case, the Executive Committee Report issued by The World Bank (2018) indicated that some of the private higher education providers in South Africa experienced increases in student enrolments in the period 2010 to 2018 to be between 10% and 20%.

The South African post-school education system formulated a number of developmental strategies in an attempt to overcome the challenges faced by higher education. Here strategies such as the New Growth Path, the Industrial Policy Action Plan 2, the Human Resource Development Strategy for South Africa 2010-2030, and South Africa's Ten-Year Innovation Plan plays a role to enable South Africa to contribute more effectively to the goal of inclusive economic growth and development, fundamentally reducing unemployment and poverty through education (DHET, 2013:X; The World bank, 2018).

The increased educational demand is not limited to South Africa. Higher education in Sub Saharan Africa is rapidly growing at a rate of 10% annually. This resulted in additional pressure on the South African higher education system. Student enrolments

in South Africa have increased by 67% in the past decade, but it is noteworthy that 70% more African students than ten years ago have enrolled in 2017 at South African higher institutions (Motala 2017:15-17). This happened in a period where government funding to public institutions has been constrained and decreased by 9% in the corresponding period (Motala 2017:18).

The South African higher education landscape is made up of 26 public higher education institutions and 123 private higher education institutions (DHET, 2018:2). Public and private higher education enrolments have reached a total of 1.1 million in 2016. Public HEIs student enrolment in 2016 was 975 837, which decreased by 9 375 students as compared to 2015. However, private higher education enrolments increased to 167 408 in 2016, which was 13.7 % (20 198) higher compared to 2015 (DHET, 2018:9). The landscape is also changing rapidly and both public and private higher education institutions are faced with changes such as global student mobility, market growth, increased access via branch campuses or improved communication technology (Mathews et al., 2018:2), and franchised and joint degrees. English is the language of choice for teaching and research worldwide, growing globalisation and the rapid rate of technological developments (Altbach, 2018:2).

This overview of the higher education environment above highlights the opportunities and challenges that exist. This study aims to analyse the higher education sector in South Africa and provide a basis to develop a model that would be relevant so that a private higher education institution can roll out this model to ensure successful business performance and ultimately ensure growth and sustainability.

1.2 PROBLEM STATEMENT

The existing educational gap sends a strong signal to South Africa and other African countries. If this (growing) educational gap does not address the educational needs of the growing African youth, this young population could easily become a huge burden to African countries (Yahya, 2017). They would not be able to sustain themselves to participate successfully in the economy because their education levels would limit them to low-level labour where their potential to earn a decent wage would be very low. In this scenario, a negative economic transformation will result in poverty, starvation, political unrest and an uncertain future for Africa. Grants, medical services and other costs would further burden the governments.

Most African governments are challenged to comply with education needs, and in particular with higher education. These include a limited capacity at public institutions, poor quality of training, providing access to students as well as increasing capacity as the population grows. Governments are further constrained when graduates leave the higher education institutions, and there are few or limited opportunities to find productive and gainful employment in Africa. Public higher education just cannot cope with the high demand created by the population growth (The Africa Report, 2017-2018). Private higher education is an alternative educational option to alleviate the demand for higher education. Already 21% of African children and young adults are being educated by the private education institutions while predictions show that by 2020, this number will grow to 25% (Caerus Capital, 2017).

Since 1994, South Africa's post-school education and training system cannot accommodate or have sufficient places for the youth and adults seeking education and training. The result of apartheid is still felt and experienced in traditionally black institutions which is evident by lack of resources and poor quality of education. Expansion is needed, both regarding numbers of available places, and the types of education and training that are available (DHET, 2012:1).

Higher education in South Africa is currently in a fluid state as higher education institutions are focused on social, financial, and political equity and redress which the government is committed to (Chetty & Pather, 2015:2). The South African government aims to raise university enrolments by 2030 to 1 500 000 (a projected participation rate of 23%) as opposed to the 2011 enrolments of 899 120 (a 16% participation rate). Also South Africa aims for 4 000 000 enrolments (approximately a 60% participation rate) in colleges or other post-school institutions. To achieve these goals, the Department of Higher Education and Training has to build, resource and support an expanded higher education system (Research and Markets, 2017). Clearly, public institutions will not be able to cope with the increased demand. Private higher education institutions in South Africa offers one avenue to alleviate the education demand.

Private Higher Education Institutions operates in the business environment which is market oriented and face typical business micro and macro-economic factors. The political and regulatory environment, as well as market forces, have a direct impact on private higher education. The South African higher education regulatory and accreditation frameworks ensure quality of provision and the maintenance of high standards in both public and private higher education institutions in South Africa. This

auger well for the country as the quality of the students coming out of both the public and private higher education institutions are of high quality and standard. However, as private businesses, the private higher education institutions cannot use the title of “university” as compared to the public higher education institutions and private higher education institutions. They are also not entitled to receive any subsidies, tax rebates or facilities from government. These financial realities signify that private higher education institutions need a better understanding of this business environment and its role-players to not only be competitive as business of higher education but also to be able compete in the open business environment for lucrative investors seeking a fair return on their investments. Hence the primary objective of this study is to develop a management model to effectively measure the business performance of a private higher education institution in South Africa.

1.3 RESEARCH OBJECTIVES

1.3.1 Primary objective

The primary objective of this study is to develop a model to measure business performance for private higher education institutions in South Africa.

1.3.2 Secondary objectives

The following secondary objectives achieve the primary objective of the study:

- Analysing the business environment private higher education institutions function in.
- Developing a model to measure business performance of PHEIs.
- Identifying the latent variables (factors) embedded within a theoretical model that measures the business performance of private business schools; and
- Measuring the business performance of private business school in South Africa.

1.4 RESEARCH METHODOLOGY

1.4.1 Literature base

The literature review focuses on the factors of success and challenges faced by private higher education providers in South Africa, antecedents relevant to performance measurement in private higher education and the actual measure of business performance. The literature review included academic articles, governmental

publications, conference proceedings as well as acts, to name but a few sources. The following electronic databases have been consulted:

- Library catalogues;
- Internet journals;
- International journals;
- Academic search lists;
- Ebscohost;
- Emerald;
- Psychinfo; and
- Sabinet.

In addition, the university libraries of North-West University, Mancosa and Regent Business School in Durban were consulted to locate academic articles, electronic sources and textbooks relevant to the study.

1.4.2 Qualitative refinement of the antecedents

The literature resulted in a list of antecedents and their measuring criteria which was then further scrutinised using semi-structured interviews with eight selected experienced executive managers of a PHEI. The list of antecedents, as well as the measuring criteria relevant to each antecedent, was discussed with each of them to determine the importance and relevance of the antecedents and its criteria. Interviewees were also invited to add antecedents or criteria they deem crucial in managing a PHEI. After the interviews, the initial list was amended and expanded to incorporate the interviewees' suggestions.

All the interviews were recorded and transcribed to ensure no information loss occurred. After the interviews, the initial list was amended and expanded to incorporate suggestions and also consider omitting criteria the interviewees did not deem important in managing a private higher institution.

The next step was to refine further and reduce the number of antecedents and identify only those key antecedents relevant to PHEIs. Here a follow-up group session with the eight interviewees was conducted using the meta-technique (as adapted and applied from Coetsee, 2002:142-147) to capture their collective views and to identify the final list of key antecedents relevant to the performance of PHEIs. This resulted in a final list of antecedents and their respective measuring criteria that were used to compile the

questionnaire to quantitatively capture data on measuring business performance of a private higher education institution.,

1.4.3 Quantitative data collection

The questionnaire contained two sections: Section A: Demographics and Section B: Measuring criteria. Section A consists of five questions to compile the demographic profile of the respondents. Section B consists of the final 15 antecedents dealing with business performance constructs, each with its unique measuring criteria. The criteria were formulated in statement format to which the respondents had to indicate their level of agreement or disagreement on a five-point Likert scale. In total, Section B consisted of 68 measuring criteria.

The population consisted of all full-time employees at two private business schools. These schools have a wide geographic service area which covers South-Africa and also Southern Africa. The total population was targeted; no sample was drawn. The employees were requested to complete the questionnaires. It was clearly communicated that participation is voluntary and also anonymous. The researcher forwarded the questionnaires to trained office managers in the outlying offices and to the academic managers at the head office in Durban to assist with the distribution and collection of the questionnaire. A total of 250 questionnaires were distributed of which 247 were completed and returned, signifying an effective response rate of 98.8%. The data was captured by the Statistical Consultation Services of the North-West University and analysed with the IBM Social Package for Social Services Version 25 (IBM SPSS, 2018).

1.4.4 Statistical analysis

The software *IBM Statistical Package for Social Sciences* software (Version 25) was employed as analytical tool in conjunction with the North-West University's Statistical Consultation Services to analyse the data. The quantitative statistical techniques used to analyse the data and their respective decision-criteria is shown in table 1.1.

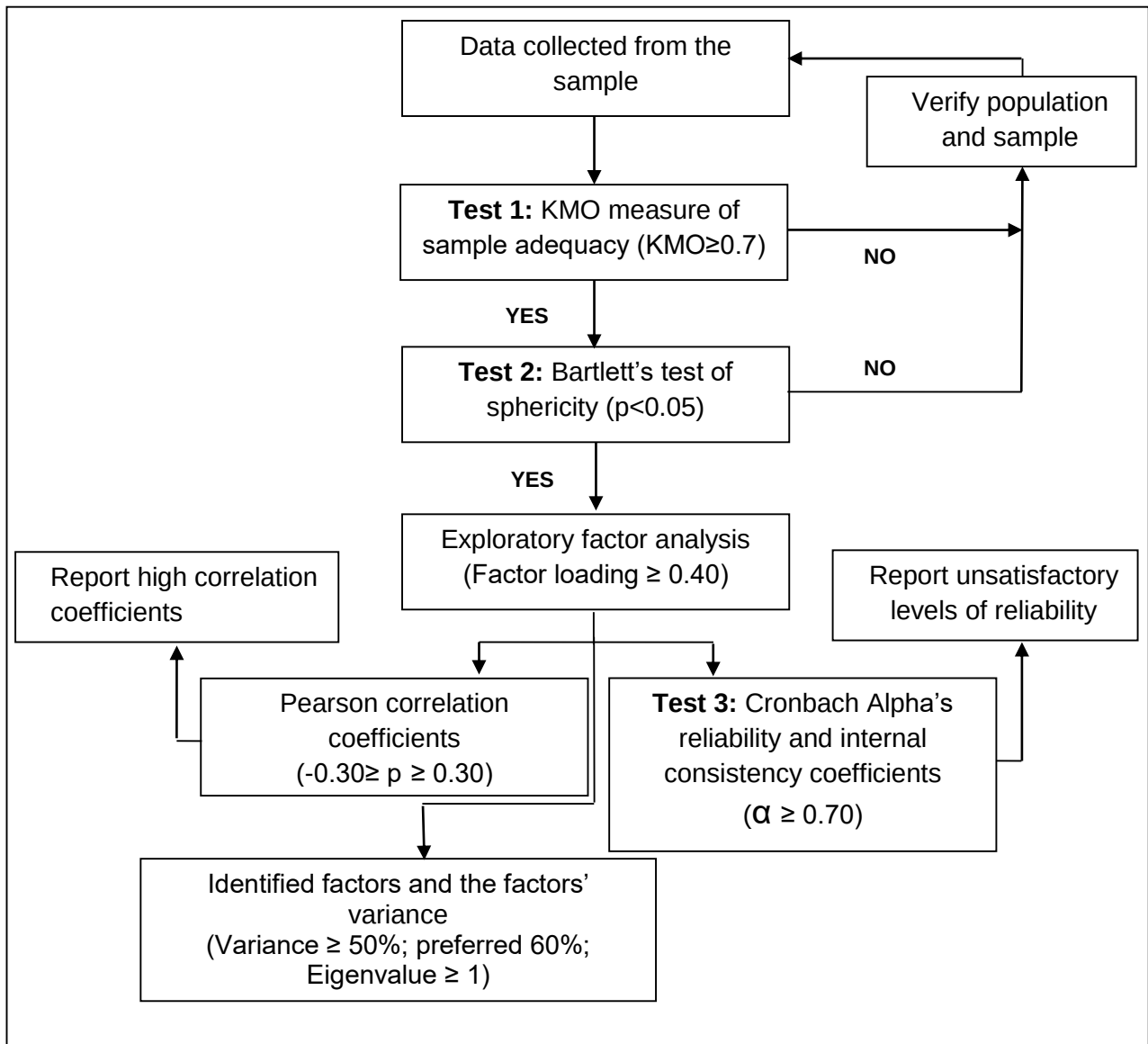
Table 1. 1: Statistical techniques employed and decision criteria

Statistical technique	Decision criteria	Substantiating source
Descriptive statistics	***	Field (2009)
Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy	KMO $\geq$ 0.9 (Excellent) KMO $\geq$ 0.8 (Very good) KMO $\geq$ 0.7 (Good) KMO $\geq$ 0.6 (Acceptable) KMO $\leq$ 0.6 (Unsatisfactory)	Field (2009) Fields & Bisschoff (2013b) Imandin (2015) Golafshani (2003)
Bartlett's test of sphericity	$p < 0.05$	Field (2009) UCLA (2017a)
Cronbach Alpha reliability coefficients	$\alpha \geq 0.70$ (Reliable) $0.57 \leq \alpha \leq 0.70$ (Acceptable) $\alpha \leq 0.57$ (Not reliable)	Salkind (2000) Cortina (1993) Field (2009)
Exploratory factor analysis (Orthogonal Varimax rotation)	Factor loading ≥ 0.40 Variance $\geq 50\%$ (Acceptable) Variance $\geq 60\%$ (Desirable) Eigenvalue ≥ 1	Costello & Osborne (2005) Field (2009) Arbuckle (2012) UCLA (2017a; 2017b)
Pearson correlation coefficient	$-0.30 \geq p \geq 0.30$ $p \geq 0.05; 0.10$	Tang et al. (2003) Du Plessis (2010). Zikmund (2008)

Source: Compiled from Field, 2009; Naidoo, 2011; Fields & Bisschoff, 2013a; Shaikh et al. (2017)

The statistical analysis decision tree in Figure 1.1 (originally developed by Naidoo, 2011) was used as a guide to illustrate the inter-relationships between the techniques and their chronological order of use are displayed in Figure 1.1.

Figure 1.3: Data analyses decision-tree



Source: Adapted from Naidoo (2011:19), Field (2009) and Arbuckle (2012)

1.4.5 Ethical considerations

The North-West University's Ethical Committee (Faculty Economic and Management Sciences) evaluated this study for compliance to its ethical standards, practices and requirements. The committee approved the study and classified it as a low-risk study; a study-specific ethics number EMS14/11/12-01/10 was issued.

1.5 LAYOUT OF THE STUDY

1.5.1 Approval of the study programme

This doctoral study is structured according to the North-West University's A-rule 5.2 and 5.10.4. The faculty relevant rule (EMS 14.1.3) governing these A-rules in the Faculty of Economic and Management Sciences (Buys, 2017) then states that:

- *Approval of the study programme and the procedure that must be followed take place in terms of general rule A.5.2 The study programme must, to the*

satisfaction of the director of the research entity, contribute to the research programme(s) of the University as determined by the different research entity.

- For the purposes of a thesis in article format, a minimum of 3 published articles or 3 unpublished manuscripts in article format should be presented.
- At least one article presented to a subsidy bearing journal is required before the thesis is handed in for examination as a requirement to obtain a PhD-degree (refer A rule 5.10.4).

1.5.2 Chapter layout of the study

The study consists of four articles (exceeding the required minimum of three articles) and six chapters. These chapters are as follows:

Chapter 1: Introduction. This chapter introduces the research environment and focuses on the problem statement. The primary and secondary objectives are formulated, and the research methodology and statistics employed in this study are discussed.

Chapter 2: Article 1 – An analysis of the business environment of private higher education institutions in South Africa. In this first article of the study, the higher education environment is examined as well as the theoretical analysis is conducted. This article has been submitted to the journal *Perspectives in Education*. It is a subsidy bearing journal indexed by Council for Higher Education. This article is currently under review after the editor's approval.

Chapter 3: Article 2 – A model to measure business performance for private higher education institutions. This article was submitted in April 2018 to the *International Journal of Management in Education*. The second article develops a theoretical model to measure business performance of PHEIs. It employs a wide array of previous performance measurement models and selects respective measurement criteria in doing so. This article has been accepted for publication pending the editor's approval of final corrections (these corrections have already been made in the article that appears in the study). The journal is subsidy bearing and indexed by Scopus.

Chapter 4: Article 3 – Factors to measure the performance of private business schools in South Africa. The third article identifies latent variables embedded in the data to measure business performance of PHEIs. The article was submitted to the *Journal of Behavioural and Economic Sciences*. It has been accepted for publication

and is currently in press. The journal is subsidy bearing and indexed by International Bibliography of Social Sciences (IBSS).

Chapter 5: Article 4 – Measuring the business performance of a private higher education institution in South Africa. The final article of the study culminates in applying the developed model to measure the business performance of a PHEI. This article was submitted to the journal *Management and Marketing*. It is a subsidy bearing journal indexed by International Bibliography of Social Science (IBSS). The article was approved by the editor and is currently in review.

Chapter 6: Conclusions and Recommendations. This is the final chapter. The chapter presents the integrated model to measure business performance of a PHEI and then focusses on the conclusions and recommendations of the study. This chapter also identifies areas for future research and provides a final summary of the study.

It is also important to note that some information needs to be repeated in the article layout because each article is a stand-alone article. For example, the research methodology is relevant in all the articles, hence the relevant parts for the specific article needs to be repeated. Another example is where the second article develops and tabulates the theoretical model. The third then uses this model as point of departure. Hence it requires repetition in the beginning of the third article for the article to make sense when it published as a stand-alone article. Albeit these examples of repeated material are limited, readers need to take note hereof.

The citations and referencing of sources also differ between the chapters. Although the thesis is referenced as per North-West University's Harvard guidelines, the articles are cited and referenced as per the specific journal requirements. The font choice, letter size and formatting also adhere to journal guidelines. Where no specific journal guidelines are relevant (Chapters 1 and 6 for example), Arial 12" is used as the standardised formatting style.

1.6 CONTRIBUTION OF THE STUDY

The study attempts to make the following contributions:

- There are many PHEI's in South Africa and across the world, and all have developed their own business performance measures to be successful. There is limited or no research conducted to determine the factors required to achieve

business performance. The literature identified the antecedents required to develop the conceptual model to measure business performance in private higher education in South Africa.

- Due to the lack of studies in this regard in South Africa, the literature study, as well as the efforts undertaken in this research study, could provide valuable insights and basis to suggest a conceptual model that could measure business performance in private higher education. It is envisaged that this research contributes to this area of study and also make a limited contribution to the body of knowledge of business performance with particular reference to developing a model to measure business performance in private higher education in South Africa. In so doing the study contributes to discourse in higher education as well as private higher education within the politically charged South African context as well as providing managerial and business insights.

1.7 LIMITATIONS OF THE RESEARCH

There is limited research with regards to measuring business performance in private higher education institutions in South Africa, and to make a comparison is difficult.

The study is limited to only two institutions in South Africa, and had the study been conducted in other similar institutions in South Africa and other African countries, this would have enhanced the findings in the study.

The study was not able to exhaust all the literature in the field as the study was focused only in South Africa, this places limitations for comparative purposes.

1.8 SUMMARY

This chapter provides a broad outline of the aims, key questions, significance and research framework to test the business performance measures required by private higher education institutions in South Africa. It is essential that directors, managers and investors in higher education have the insights of the regulatory and business environment in South Africa, as well being able to measure the business performance. Once these are understood, these essential business performance measures can be utilised to develop strategies to achieve the desired success and return on investment. This is a complex area of research and study, and it is hoped that a finite contribution to the body of knowledge would be made and, it is hoped that research in the future by other researchers would make added contributions in this direction.

This chapter introduced the study and provided a broad over view of the layout and expected content of the study. The topic of measuring business performance in a private higher education in South Africa is introduced, including a perspective of the higher education regulatory environment and the South African governments plan to address the increased demand for higher education and training, the objectives of the study and the relevant scientific techniques are discussed, and the layout, as well as the format, is presented. The statistical decision-making is presented as it was applied in the study, and the limitations of the study were also indicated.

The first stand-alone article is presented in the next chapter. This article provides an analysis of the business environment of Private Higher Education Institutions in South Africa.

CHAPTER 2

ARTICLE 1:

AN ANALYSIS OF THE BUSINESS ENVIRONMENT OF PRIVATE HIGHER EDUCATION INSTITUTIONS IN SOUTH AFRICA

This article was submitted to the journal *Perspectives in Education*. It is a subsidy bearing journal indexed by Council for Higher Education. The article is currently under review after the editor's approval.

An analysis of the business environment of Private Higher Education Institutions in South Africa

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ABSTRACT

There is general agreement that investing in higher education by any country leads to economic development, advancement and acts as a driver for innovation. Rapid population growth in Africa left governments struggling to meet the growing demand for higher education. Here private higher education institutions in South Africa (and around the world) play an important role to meet educational demand. This article explores the South African private higher education institutions' business environment. The study shows that the increased demand and the government's inability to cater for the higher education demand creates business opportunities for private higher education institutions to capitalise on. Entering into the education market, however, necessitates that private higher education providers understand this highly controlled business environment and its role-players; private educators can thereby adhere to the required education laws, standards and other government compliance factors to address the education market needs successfully. The role-players that impact on private higher education includes the Department of Higher Education and Training, Council for Higher Education, South African Quality Authority, students and public and private education providers as competitors. Macro-environmental influences reside within private investors, the local and global economy, online learning platforms and infrastructure, professional bodies and education demand.

Keywords: Africa, private higher education, business environment, role-players, universities

JEL codes: M10; I25

LIST OF ABBREVIATIONS

CET	Community Education and Training Colleges
CHE	Council for Higher Education
DHET	Department of Higher Education and Training
DOE	Department of Education
GTER	Gross Tertiary Enrolment Rate
OECD	Organisation for Economic Co-operation and Development
PHE	Private Higher Education
PHEI	Private Higher Education Institution
SA	South Africa
SAQA	South African Qualifications Authority
TVET	Technical Vocational Education and Training colleges
UN	United Nations
UNFPA	United Nations Population Fund

INTRODUCTION

There are approximately 1.8 billion young people between the ages of 10 and 24 years of which 62% reside in Sub-Saharan Africa (Peercy & Svenson, 2018:39). In addition, the World Bank (2016) indicates that approximately 11 million of young people in Sub-Saharan Africa would annually join the job market every year for the next decade and that the African youth population would surpass the Asian youth population by 2078 (UNFPA, 2017; UN, 2017). This young population would require education and need to learn skills to participate in the economy actively and sustain themselves, and governments are unable to educate these youths at public universities (UN 2016); this opens a business opportunity for private higher education (Chipperfield, 2016).

Globally, and especially in developed countries, market forces resulted in shifts from the public towards private education institutions; this trend continues from primary, secondary and even up to higher (tertiary) education levels. Levin (2018:3) ascribes this trend to private education providers seizing the market demand disparity to enter the educational market as service providers. Also, the role of the Fourth Industrial Revolution allows access to education and information via the various electronic and educational platforms (Shaikh, Bisschoff & Botha, 2018). Simultaneously, the business environment is also changing rapidly because of the mobility of global competition, disruptive innovation and entrance of private education providers as competitors to public institutions. In such a business environment, Barr and McCellan (2018) assert that both public and private higher education providers are experiencing great changes. These changes relate to changes in government regulation, competition for financial, human and physical resources, the cost of technology, competition for students, as well as the negative effects that rising living costs have on education. All these changes influence the affordability and demand for higher education.

PROBLEM STATEMENT

Yahya (2017) heeds a stern warning that if the educational gap cannot be filled and if the needed education is not provided to the African youths, this young population could easily become a huge burden to African countries. They would not be able to sustain themselves to participating in the economy because their education levels would limit them to low-level labour where their potential to earn a decent wage would be very low. In this scenario, a negative economic transformation will result in poverty, starvation, political unrest and an uncertain future for Africa. Grants, medical services and other costs would further burden the government.

The harsh reality, however, is that most African governments are challenged to comply with education needs, and in particular with higher education. These include a limited capacity at public institutions, poor quality of training, providing access to students as well as increasing capacity as the population grows. Governments are further constrained when graduates leave the higher education institutions and there are few or limited opportunities to find productive and gainful employment in Africa. Public higher education just cannot cope with the high demand created by the population growth (The Africa Report, 2017-2018). Private higher education is an alternative educational option to alleviate the demand for higher education. Already 21% of African children and young adults are being educated by the private education institutions while predictions show that by 2020 this number will grow to 25% (Caerus Capital, 2017).

South Africa had almost a million students enrolled at public higher education institutions in 2016, with a further 90 000 students enrolled in private higher education (CHE, 2016). According to the Green Paper for Post-School Education and Training, the Department of Education and Training (DHET, 2013) in South Africa aims to increase university enrolments to 1,500,000 students by 2030 (projected at a participation rate of 23%) (McGregor, 2012), as opposed to the 899,120 students enrolled in 2011 (calculated at a 16% participation rate). In addition, South Africa also aims for 4,000,000 enrolments (approximately 60% participation rate) in colleges or other post-school institutions (DOE, 2013). These optimistic aims are, however, not supported by realistic budget allocations to higher education. This budget allocation is also under pressure by the demands for free education from the “Fees-must-fall” campaign which is accompanied to violent unrest and the destruction of educational facilities to the value of approximately R800 million (US \$54 million) (BusinessTech, 2016).

The South African government’s budget for higher education averages 0.75% of the total budget; this is below average of the budget in African countries at 0.78%. This budget allocation is also well below the Organisation for Economic Co-operation and Development (OECD) countries at 1.21% and the world average budget allocation for higher education at 0.84%. South Africa’s budget spent on specifically higher education was 12% in 2016, whereas for the rest of Africa was 20% while the OECD countries budgeted 23.4%. The rest of the world budgets 19.8% for higher education (CHE, 2016).

These financial realities signify that public education alone just cannot service the education demand in South Africa. Private higher education in South Africa, similar to that of many developed countries, is required to fill this gap. To do so private higher education institutions need a better understanding of this business environment and its role-players.

OBJECTIVES

The primary objective of this paper is to analyse the business environment private higher education institutions function in. This primary objective is served by the following secondary objectives:

- Provide an overview of the higher education and private higher education in South Africa; and
- Identify and discuss the relevant role-players about PHEIs.

A PERSPECTIVE OF HIGHER EDUCATION

Higher education institutions are major social institutions, which embrace their times, and produce individuals who act as agents for social change. Higher education institutions are themselves, subjected to social, political and economic influences both internationally and locally. However, dealing with the concept of higher education requires some formalisation

as most universities and degree studies come to mind although the concept encompasses much more. Hence the concept of higher education was historically defined as:

Tertiary education at non-degree level is sometimes referred to as further education or continuing education as distinct from higher education.

(Percy, 1933).

A more recent definition state that:

"...education beyond the secondary level; especially education provided by a college or university."

(Merrian-Webster, 2016).

Noteworthy is the definition of Aegee (2016) who states that higher education is a cumulative concept and that it is not so easy to define:

"There is no simple definition of higher education. The international definition of tertiary (post school) education divides it into two parts. Type A (Higher Education) and Type B (Further Education). Shortly, Higher education mainly and generally means university-level education. It offers a number of qualifications ranging from Higher National Diplomas and Foundation Degrees to Honors Degrees and as a further step, Postgraduate programmes such as Masters Degrees and Doctorates."

(Aegee, 2016)

As a social agent of change, universities (or for that matter all higher education institutions) are challenged to fulfil specific roles in the community and country they serve. In this regard, Crow (2014) states that:

- **Universities are unique kinds of global institutions that stand** neutral as conveners, act as assemblers of talent, generate ideas through creativity and passion and mould the young minds of the future. They act as institutions applied to problem-solving and advance the social and economic well-being of the community.
- **Universities are adaptive and innovative.** They have a responsibility to explore the traditional boundaries of academic disciplines in pursuit of intellectual excellence and aim to instil an academic and research orientated culture.
- **Universities embrace their cultural, socioeconomic and physical setting by becoming** socially embedded in their community and thereby to foster learner development through direct engagement.
- **Universities focus on the individual by** fostering student success through a student-centric rather than a faculty-centric orientation. Successful universities are those capable of providing creative and unique learning environments that prepare students to be "master thinkers."
- **Universities must become effective partners for global development using** networks between like-minded alliances to advance their present global knowledge economy. This should entice communities to transform their thinking and to see universities as valuable generators of new ideas and who has the potential to develop new technologies and concepts that could effectively change lives on a global scale.

Education plays a significant role towards market liberalisation and integration into the world economy, poverty reduction, and human development, social inclusion, improving health and job prospects, sustainable development for the people which ultimately impacts on the countries around the world. Ultimately education transforms societies: it breaks the cycle of poverty and is a key to a nation's development and prosperity (Babaci-Wilhite & Geo-Jaja, 2018).

Higher education institutions are faced with similar challenges. These include inadequate funding, inability to diversify funding, poor infrastructure and facilities, increasing demand for access, poor governance, poor leadership and management (Mouton & Wildschut, 2015). There are also other factors such as inadequate and unqualified staff, the academic brain-drain, quality and relevance (Pouris & Inglesi-Lotz, 2014).

In response to these challenges, higher education institutions lead the way to visualising and creating a new future through research and education on a multi-disciplinary level (CHE 2016:5). Furthermore, Mgaiwa and Poncian (2016) add that education is, and continues to be, one of the basic conditions for socio-economic and technological transformations of any country or society. In support, Mouton and Wildschut (2015) asserted that higher education is instrumental to social, political and economic development which is central to the economic growth of any country. In their review of progress, opportunities and challenges the African education sector the World Bank (2015) report that higher education in Africa has substantial benefits for both the young people and the society. These include better employment opportunities and job prospects, improved quality of life, and greater economic growth. Regarding the return on investment in higher education, Jegede (2016) points out that Africa offers a lucrative investment opportunity with an average return of 21%; this is at present one of the highest rates of return in the world in education.

Despite these challenges, the desire and need to progress and develop has led globally to the higher education sector that moved from a historical state of exclusiveness where the elite had access to education, to a state of revival and inclusiveness. This revival in higher education is key in developing a nation's economy and society and to facilitate economic growth (Varghese 2016). Some African countries have the highest growth rates in higher education, although their enrolment base continues to be low. In this regard, (PricewaterhouseCoopers, 2017) points out that South Africa needs to accommodate 1.5 million higher education students by 2030. In 2016 there were 938 201 student enrolments in public higher education alone (SANews, 2017); 309,788 already funded by the National Student Financial Aid Scheme while the scheme expects to add more than 100,000 students to this figure (Nxasana, 2017). This trend follows international trends where students entering higher education are becoming a universal aspiration. The number of students in higher education has constantly increased across the world, and projections indicate that the student numbers internationally will reach 160 million by 2025 (Klemencic & Fried, 2015).

In sub-Saharan Africa, Mouton and Wildschut (2015) point out that universities have grown from about 20 institutions in 1960 to almost 650 in 2013. However, Shantayanan, Monga and Zongo (2011) highlighted that between 1991 and 2006, Africa experienced a 30% decline in government expenditure per student. This decline in higher education expenditure was a result of international partnerships and links by higher education institutions in Africa with both public and private higher education institutions in United States, United Kingdom and Canada to ensure economic survival (Ishengoma, 2016). The ensuing struggle for survival by public universities, who received lower subsidies from the state, sparked a growth in the private provision of higher education in sub-Saharan Africa. Despite their challenges, African governments succeeded to grow public education in the aftermath of colonialism, and the number of public universities in sub-Saharan Africa doubled from about 100 to nearly 200 since 1990 up to 2007. However, private higher education growth has been much faster. The 2009 World Bank reported that in the same period, private higher education in sub-Saharan Africa grew from 24 to 468 private universities and colleges (Havergal, 2015).

In Africa, the percentage of students enrolled at tertiary institutions has increased between 2000 and 2010 from 2.3 million to 5.2 million. Student enrolments in Sub Saharan Africa grew from an estimated 200,000 some 40 years ago, to an estimated ten million by 2014 (Friesenhahn, 2014). However, when comparing the continent using the Gross Tertiary Enrolment Rate (GTER) (which indicates the school leaver cohort that enters into higher education other countries), African education paints a dismal picture. Comparative GTER figures on other continents show that 76.6% of the school leaver cohort enters into higher education in North America and Western Europe, while 71.4% do so in Eastern Europe, 22.8% in South Asia. In Sub-Saharan Africa, the GTER was only 8.2% in 2013, dropping to 8.0% in 2015. In comparison to the rest of the world, the percentage is staggeringly low (ICEF Monitor, 2015). Turkey had rapidly increased their GTER from 2000 to 2012 which rose from 25.3% to 69.4% (an increase of 44.1%), while the following increased realised in Albania (41.7%), Cuba (40.5%), Chile (37.2%), Belarus (37.0%) and Iran (36.0%). In China, the GTER increased from 3.1% in 1990 to 7.8% in 2000 and 29.7% in 2013. India had a GTER increase from 5.9 to 23.9% in 1990–2013, and in Indonesia from 8.5% to 31.5% from 1990 to 2012 (Marginson, 2016:). South Africa's GTER for 2015 was better than the rest of sub-Saharan-Africa at 29.2% (Stadio Holdings, 2016).

In servicing this educational demand, the private sector institutions still lack in enrolment numbers; the private higher education sector is considered as the fastest growing in Africa. In 2015 in sub-Saharan Africa there are 109 public universities, 526 public polytechnics or colleges, and 456 private institutions. Despite public institutions' rapid growth, the Public institutions still account for 72% of student enrolments (Mouton & Wildschut, 2015).

It is evident that the potential of growth exists in higher education in Africa and that the public sector is unable to service the growing demand. In this business environment, private higher education can play a significant role in African countries to alleviate the demand and subsequently provide education to meet the aspirations of the peoples of Africa.

PRIVATE HIGHER EDUCATION

In the last two decades, private higher education has grown significantly worldwide. Levy (2015:8) states that an estimated one in three students globally is studying at a private higher education institution. Typical reasons complementing the growing demand and inability of the governments' to provide sufficient education opportunities are relational and social advantages, flexibility in decision-making and that private higher education institutions are generally more "secular", "culturally diverse", "less politicised" and "learner-friendly" (Shah, Nair & Bennett, 2013). Private higher education institutions are found to be more adaptable to the changing needs of the market and less bureaucratic (Klemencic & Fried, 2015; Levy, 2015).

Private higher education providers in Africa increased throughout the continent and typical examples of countries who rely heavily on private higher education institutions are Gabon (47%), Mozambique (32%) and in Ethiopia (24%) (Garwe, 2016). These private institutions compete in a highly public regulated environment where institutions have to function, survive and compete, not only with one another but also with public higher education institutions (Van Schalkwyk, Davis & Pellissier, 2013). This is especially relevant to the South African educational environment. In this environment, Bezuidenhout and De Jager (2014) note that private higher education institutions are business orientated, entrepreneurial and directly affected by market forces, whereas their major competitors in the public sector are operating in a more secure environment where a substantial part of their income is secured by state subsidies. However, in this competitive environment, Pourisa and Inglesi-Lotz (2014) conclude that private higher education has moved to the

centre stage of education business strategies to prosper and that they contribute to economic prosperity, fuller employment and social cohesion. With the constraints that governments have regarding resource allocation to public universities, private higher education institutions are filling the educational gap.

PHEIs have eased the social demand for access to higher education and strategically segmented the education market, charging tuition fees that are market- and also market segment related. In this case, some private education institutions service the elite market at high priced programmes while other institutions have targeted the lower-income markets with very affordable prices and payment options. Both business models compete well in maximising the wealth of the shareholders. These business models followed by the private institutions also allows for disproportional salaries of faculty; this is more difficult to address in the public sector because the salaries of academics are influenced by government. As a major cost centre, salaries are an important denominator of profitability of any business, especially in a services environment such as education (Garwe, 2016).

South Africa had in February 2018, according to the records of the Department of Higher Education's Register of Private Higher Education Institutions, a 100 registered and another 28 provisionally registered PHEIs private higher education institutions (DHET, 2018). There are also 26 public universities. Even though PHEI function within the same quality, regulatory and accreditation environment as the public institutions, they do operate in a constrained environment. Typical constraints are that:

- The title of "university" cannot be used by PHEIs.
- PHEI's do not receive any subsidies, tax rebates or facilities from the government.
- The survival of PHE institutions depends on the achievement of their business goals and financial well-being.
- Their performance has to be measured and monitored like any other business because they are, in essence, private businesses offering education to the open market.
- Research outputs are encouraged, yet not rewarded, by the DHET.

ROLE-PLAYERS IN PRIVATE HIGHER EDUCATION BUSINESS ENVIRONMENT

The different role-players and their influence on the education environment the private higher education institutions operate in, are the Department of Higher Education and Training (DHET), the Council for Higher Education (CHE), South African Qualifications Authority (SAQA), students and the business competitors.

The Department of Higher education and Training (DHET)

As mandated by the Constitution of the Republic of South Africa, Section 29 (SA, 1996), the DHET aims to provide quality education to all South Africans at every level of the post-school system. Section 29(3) of the Constitution specifically deals with private higher education. In conjunction with the constitution, the Higher Education Act, 1997 (Act No. 101 of 1997) (SA, 1997), The Continuing Education and Training Act, No. 27 of 1997 (as amended in 2006) (SA, 2006), as well as the Regulations for the Registration of Private Higher Education Institutions, as published in Government Gazette No.39880 dated 31 March 2016, requires that private institutions are to apply and obtain registration with the DHET who is obliged to:

- ensure that private higher education institutions offer an acceptable quality of education;
- have the resources, capacity and/or expertise to deliver quality programmes,
- qualifications are aligned with the NQF; and
- continues on a path of transformation by government policy and regulation.

The regulatory framework also sets criteria that define who is eligible for applying for registration and who qualifies for registration. It further outlines the responsibilities of an institution once registered. Registration can, therefore, be seen as a means of protecting the integrity of the higher education system, as well as protecting the interests of the public (Kehdinga, 2018; DHET, 2016). The regulatory environment from the DHET is very particular and bureaucratic. Private higher education institutions have to comply with these conditions, and also some specific conditions the DHET might propose, or risk losing their registration. Unregistered education providers face prosecution (DHET, 2016).

Registered private higher education institutions offer a wide array of learning programmes and may award qualifications such as higher certificates, diplomas or degrees as per the Higher Education Qualifications Sub-Framework. These qualifications are accredited by the CHE.

Further, a financial surety is required which places a cash-flow burden on small institutions; this is disadvantaged against the larger competitive institutions who have the financial muscle to comply. This surety is a statutory requirement by DHET for the protection of the students if the private higher education institution closes down. In this case, the students are not compromised and a “teach-out” can be initiated to afford the students the opportunity to qualify students who are in the process of studying at such an institution.

Council for Higher Education (CHE)

All programmes offered by both private higher education institutions must be accredited by the CHE (2018:3). The CHE is responsible for the quality assurance of higher education qualifications which are on the National Qualifications Framework (NQF) levels 5 to 10. Accrediting private institutions that wish to offer their qualifications also need to comply and apply to the DHET for institutional and programme accreditation by the Higher Education Qualifications Council which is a permanent committee of the CHE (DHET, 2016). On applying for registration, an applicant must provide proof that an application for accreditation has been lodged with the HEQC. The application and accreditation are onerous and complicated and regarded to be high barriers to entry (DHET, 2016).

South African Qualifications Authority (SAQA)

All institutions both private and public, comply with the National Qualifications Framework (NQF), which is the system into which the South African qualifications and part qualifications are organised and recorded. By having their qualifications registered by the South African Qualifications Authority (SAQA) (CHE, 2018), SAQA such a registration complies with the National Qualifications Framework Act, 2008 (Act No. 67 of 2008) (SA, 2008). SAQA is thus responsible for maintaining the NQF. To enable the Registrar to register private institutions, SAQA makes decisions as to which qualifications sub-framework a qualification belongs to avoid a situation where private institutions may offer qualifications or part qualifications without registration of such qualifications on the NQF (DHET, 2016). SAQA is regarded as a bureaucratic institution with slow decision-making history which private higher education institutions have to comply with to offer educational programmes in South Africa.

Students

Higher education and the students have become an important contributor to the economic development of many countries. Countries are making a concerted effort to attract students to gain revenue which competes with other export revenues (Jose & Chacko, 2017). In the

South African Higher Education system students are the primary focus of any higher education institution, be it private or public. South Africa had over 2.2 million students who enrolled in public and private institutions (2015). These numbers reflect that 50% of the students were enrolled in higher education institutions, while 33% were enrolled in Technical Vocational Education and Training (TVET) colleges, 13% in Community Education and Training Colleges (CET) colleges and 4% in other private colleges (DHET 2017:2). In the public and private higher education institutions, a total of 1,132 422 million students registered; 985 212 were registered in public higher education institutions and 147 210 in private higher education institutions (DHET, 2017).

Students and their parents have freedom of choice where they want to study. Recruitment of these students is a crucial business function which translates directly to the income of private education institutions. Also noteworthy is that the majority of South African private higher education students are adult learners who require tailored learning solutions. Resultantly any recruitment activity should include consideration of the market orientation, practical orientation, target orientation, student orientation and needs orientation. Here the student is central and the benefits offered by private higher education institutions and their needs are focus areas; given that many students are also distance students, their unique needs are critical in recruitment strategies.

Competitors

In addition to public universities and colleges, international competitors are also entering the South African education market. However, high entry barriers such as stringent registration requirements with the CHE resulted in international competitors entering the South African private higher education market by acquiring an interest in existing 'going concerns' private higher education institutions (CHE 2018:7). Alternatively, a strategy of first entering into the primary or secondary education market also poses an opportunity to later evolve into higher education by expanding the product range offered to the education-hungry market. It is also noteworthy that competitors strategically use the South African private higher education institutions as a springboard to enter the larger African market. Both sub-Saharan and even Northern Africa are serviced by South African based competitors. This changes the competitor-landscape of higher education in South Africa because international investors acquiring an interest in local institutions expand and aggressively compete in the African market as well as in South Africa. This leads to a competitive environment where a few big institutions exist that compete with many small insignificant institutions.

CONCLUSION

The education environment in South Africa (and Africa) is struggling to provide for the educational needs of the peoples. Budgetary constraints limit the ability of governments to provide enough public education facilities. As a result, a market opportunity for private higher education institutions exists. In this case, private higher education institutions can not only enter into this opportunity but also contribute positively to South Africa's educational needs and economic growth.

However, highly regulated and stringent quality control of higher education requires registration of both private institutions and accreditation of programmes. Central to the Constitution of South Africa is also the Higher Education Act and Government Gazette regulations that stringently control education, and also private higher education. Positively, the DHET and its mechanisms ensure that South African institutions, private or public, do offer qualifications of quality, and that non-compliant institutions are legally removed as suppliers of higher education.

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CHAPTER 3

ARTICLE 2:

A MODEL TO MEASURE BUSINESS PERFORMANCE FOR PRIVATE HIGHER EDUCATION INSTITUTIONS

This article was submitted to the *International Journal of Management in Education*. It is a subsidy bearing journal indexed by Scopus. The article has been accepted pending the corrections suggested by the reviewers. These corrections are currently under review by the editor for final approval.

A model to measure business performance for private higher education institutions

ABSTRACT

Traditionally business constraints such as a lack of trust from the public, over-regulation and competition with state-funded public institutions, have constrained the growth of private education businesses despite an education-hungry South African market. Successful business performance of private higher education institutions depends on identifying and measuring the key business performance indicators. This study identifies these antecedents and measuring criteria to effectively measure the business performance of private higher education institutions; thereby developing a model for them to manage their businesses to perform better. The literature revealed numerous business performance antecedents which were reduced by structured interviews with executives and group-interaction using the meta-technique analysis to identify antecedents specifically relevant to the business performance of private higher educational institutions. Measuring criteria developed for these factors culminate in a usable model to measure business performance of private higher education institutions; this should improve management efficiency and competitiveness in the South African education market.

Keywords: PHEI, business performance, questionnaire, business performance model, Private Higher Education Institutions, management, strategy

JEL codes: M10; I25

LIST OF ABBREVIATIONS

CHE	Council for Higher Education
DHET	Department of Higher Education and Training
PHE	Private Higher Education
PHEI	Private Higher Education Institution
SA	South Africa

INTRODUCTION

Global business environment

Many changes over the last decade influenced the global business environment; higher education in South Africa is no exception where frequent and violent student unrest demand a free public higher education system while private higher institutions also seek to tap into higher education businesses opportunities. In this market the Fourth Industrial Revolution accelerated changes in learning delivery, methodology and knowledge transfer, forcing managers of educational institutions to adapt rapidly to remain relevant and competitive (Shaikh, Bisschoff and Botha, 2017). Organizational structures and models are also changing rapidly where owned-and-operated business models now find benefit in collaborative partnering, decentralised business units and active electronic teams (Shaikh et al., 2017). These shifts hugely impact in the way businesses operate today. Furthermore, the influence of the global economy and the South African government transformed and also impacted on businesses and their performance. Businesses are challenged by these uncertainties, continually changing environments and the rapid pace of change (Varanasi, 2018). Private Higher Education Institutes (PHEIs) is no exception as they compete in the open market as private businesses; however, they are required to operating under the Department of Higher Education and Training (DHET) to ensure quality education, among other reasons (DHET, 2013). Unlike the fast-paced business environment, the decisions of the department impacting on PHEIs are tedious and slow in main educational decisions.

The constantly changing and disruptive business environment in a globalised economy is not a new phenomenon. Already in 2006, Gosselin and Bauwen (2006) identified new challenges such as changing consumer needs, technological opportunities and innovations employed by competitors. Further, Wiklund et al. (2009) added that businesses are challenged by competitors and that their market share for products and services is under pressure; this shake-out eliminated less effective businesses (Lukose, 2018). This is also evident in the past of PHEIs in South Africa where numerous established private education institutions were outmanoeuvred and had to close shop, either due to market share decline or their inability to comply with the stringent requirements of the DHET (DHET, 2016; Le Cordeur, 2017). This shake-out of less successful businesses had been predicted in 2009 by Kuratko and Audretsch (2009) who suggested that the higher education business environment has become highly competitive because of increased risk, constant change, difficulty in forecasting within change, porous territories and boundaries, new types of business forms, and accelerated innovation which influences business operations and managerial decision-making.

However, the changing education landscape also allows for opportunities for astute managers and businesses to gain strategic advantages and capture market share in unconventional ways to acquire wealth (Ogunsiji and Ladanu, 2017). Here the ability to remain competitive and stay ahead of the competition requires an analysis of their internal processes, management of resources and capabilities, and the ability to anticipate and utilise external factors such as the location as a competitive tool and to satisfy the ever-changing needs and wants of customers. Furthermore, factors impacting on business performance are synergy of cooperation, dynamic capability, supplier network strategies and business development strategies (Kurniawan and Budiman, 2016:9). These authors also point out that business performance is differently defined by organisations. With all the complexity and continual change in the political and business environment, business performance is complex and not easy to administer. However, one definition of business performance is a method to measure the achieved results of an organisation or business over a specific period with the aim to conclude if there was an improvement or not from the previous period and what the impact of this change is on the organisation. There are different ways of measuring business performance, but the two main categories are financial and marketing performance (Desarbo et al., 2005; Kurniawan and Budiman, 2016; Solimun, 2017).

South African education environment

In Africa, PHEIs have increased throughout the continent. Countries Gabon (47%), Mozambique (32%) and Ethiopia (24%) are typical examples where the numbers of private higher education institutions have grown significantly (Garwe, 2016). Although the South African educational environment is highly competitive, these private institutions compete not only with one another but also with the well-established public higher education institutions (Van Schalkwyk, Davis & Pellissier, 2013). This is especially relevant to in this study because private higher education institutions are business orientated, entrepreneurial and directly affected by economic and market forces, whereas their major competitors in the public sector are operating in a more secure environment where a substantial part of their income is secured by state subsidies (Bezuidenhout and De Jager, (2014). In South Africa, there are 26 public education institutions and a 100 DHET registered (with another 28 provisionally registered) PHEIs are in operation (DHET, 2018). In 2017 the 26 public universities enrolled just over a million students (Writer, 2018) and graduating 203,400 students (DHET, 2018). The PHEIs enrolled 168,000 students and graduated 39,000 students in 2018 (DHET, 2018).

In this prelude to the theoretical study of model development, it is clear that private education businesses are also subjected to the modern business environment and its challenges, and studies with similar aims act as the foundation of the theoretical confirmation of selected antecedents. In this case, the structure of this article first aims to determine the relevant antecedents using

theory and qualitative research, and then cement these antecedents theoretically in the conceptual model.

PROBLEM STATEMENT

According to Barr and McClellan (2018), higher education institutions both public and private are confronted with business challenges of finding financial resources, increased scrutiny from governmental agencies and regulatory bodies, increasing access to higher education, cost of technology, competition of staff and students, as well as the rising costs of goods and services to fulfil the educational imperative. The influence of South African PHEIs has had an impact on higher education in the world and especially in Africa. PHE has grown rapidly, and where supportive government policies exist. In these cases, private higher education, massification, increased demand for education as well as global trends have seen strong growth in private higher education. Ethiopia has more than 120 private institutions (Yirdaw, 2016). Ghana, South Africa and Uganda now have more PHEIs than public institutions (Akplu, 2016, SA News, 2017). In 2009, there were 468 private and 200 public universities in Africa. Due to the demand and desire for access to higher education, public institutions are not able to manage the demand for education; this opened a market opportunity for PHEIs to fill this gap (Tamrat, 2018).

It is evident from the above that to define the critical success factors in private higher education and business, in general, is not an easy task because the nature and profile of every business are different. Private higher education is no exception to the rule. Limited research specifically focused on PHEIs and their business performance. Traditional views of sales or finances are not sufficient in a strong service delivery environment. Therefore, a need exists to identify the antecedents and its measuring variables that determine business performance in the private higher education industry; this study aims to do just that.

RESEARCH QUESTION

It is imperative to measure the business performance of PHEIs. Stemming from their competitive stance for investor capital and also operational efficiency, PHEIs are faced with the question: *How do investors and managers measure the business performance of a PHEI?*

This study addresses this research question specifically.

OBJECTIVES

The primary objective of this study is to develop a theoretical model to measure business performance of PHEIs.

The following secondary objectives serve this primary objective:

- Perform literature research to identify relevant business performance antecedents;
- Identify, from the literature, the measuring criteria which are relevant to the antecedents in the higher education institution environment;
- Develop the list of antecedents and their measuring criteria;
- Empirically determine the relevance of the antecedents and their measuring criteria; and
- Theoretically confirm the relevance of each of the selected antecedents.

RESEARCH METHODOLOGY

The methodology followed firstly involved a theoretical study of business performance measures. These included all sectors and all businesses that measure their success; financial and sales measures were abundant while other criteria also surfaced as measuring possibilities. Employee turnover, satisfaction, returning customers and marketing metrics are but a few possibilities (Jeffrey, 2010). The literature study employed similar studies and models that measure business performance (and/or success). The literature study identified a wide array of possible antecedents to measure business performance (about all types of businesses). This extensive list was impractical and many of these antecedents had little or no relevance to the business performance of PHEIs specifically.

Qualitative research was employed to evaluate, retain and to validate the business performance antecedents. The list of 24 antecedents drafted from the literature review served as the point of departure in the interviews. A panel, consisting of eight executive managers were selected based on their experience, position and knowledge of PHEIs. These managers were interviewed by means of a structured panel discussion.

The interviewee profiles are:

- **Interviewee 1:** is a 60-year-old Director of marketing with ten years' experience in PHEI and holds a B. Degree in marketing.
- **Interviewee 2:** is a 47-year-old senior manager with a PhD and 15 years' experience in PHEI.
- **Interviewee 3:** is a 73-year-old Director with over 40 years of public and private higher education experience and holds a Professorship.
- **Interviewee 4:** is a 65-year-old professor with over 30 years' experience in government, public education and private higher education.
- **Interviewee 5:** is a 42-year-old Director with a professional accounting qualification and ten years' experience in PHEI.

- **Interviewee 6:** is a 40-year-old senior manager with 15 years' experience in PHEI with a professorship.
- **Interviewee 7:** is a 50-year-old Director with 20 years' experience in private higher education and holds a professorship.
- **Interviewee 8:** is a 40-year-old senior manager with 15 years' experience in PHEI with a Masters qualification.

All the interviews were recorded and transcribed to ensure no information loss occurred. After the interviews, the initial list was amended and expanded to incorporate suggestions and also consider omitting criteria the interviewees did not deem important in managing a private higher institution. The list of antecedents, as well as the measuring criteria relevant to each antecedent, was provided to them. The researcher postulated the following discussion questions with each of the interviewees:

- Each interviewee had to evaluate the most relevant and important antecedents for business performance at a PHEI.
- The respective measuring criteria for each antecedents were discussed.
- The interviewee had to eliminate antecedents he/she do not deem important in measuring business performance.
- Finally, the interviewees were also invited to add antecedents or criteria he/she deems crucial in managing performance in a PHEI.

The next step was to refine further and reduce the number of antecedents and identify only those key antecedents relevant to PHEIs. Here a group session with the same eight interviewees was conducted. The meta-technique (as adapted and designed by Coetsee, 2002) was then employed to capture the views and identify the list of key antecedents relevant to PHEIs performance. The meta-technique process involved three sequential steps.

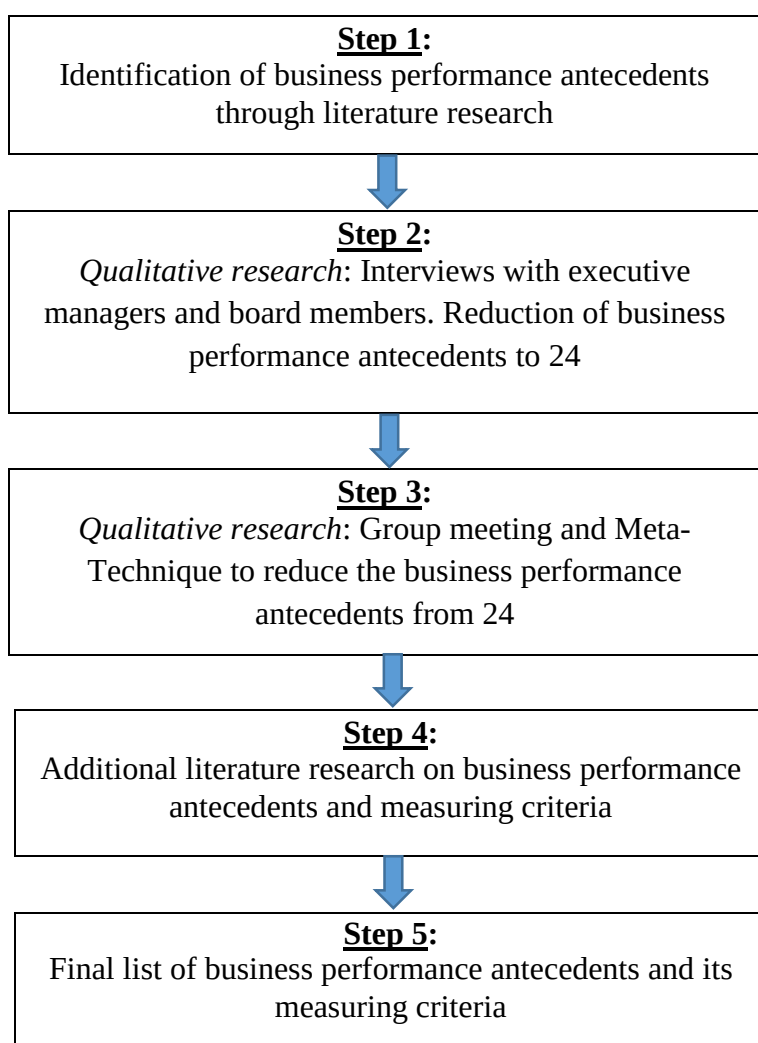
- First, all the antecedents were eliminated where all group members agreed that these antecedents are not relevant in measuring business performance of a PHEI. The session also allowed for the members to add important antecedents which they regard as important antecedents. Eventually the group agreed upon 24 antecedents of PHEIs' business performance (See Table 2).
- Second, this list was then subjected to the meta-technique where each antecedent was evaluated and grouped (if fitting) with the others to eliminate dual recording of an antecedent. The importance of each antecedent was evaluated and recorded. Care was undertaken to keep the number of antecedents within manageable limits. The interviewees were also asked to rank the antecedents in order of importance. The final

list contained 15 antecedents the group regarded as important to measure the performance of a PHEI. These antecedents were then further subjected to literature research to ensure its relevance and importance (See also Table 2).

- Third, the selected antecedents' measuring criteria were presented to the group. Measuring criteria were limited to a maximum of five per antecedent. This was done to ensure that the more criteria were captured in the list.

The research methodology appears in Figure 1.

FIGURE 1: STEPS IN DEVELOPING THE MODEL



RESULTS

The results and progression towards the development of a conceptual model to measure the performance of PHEIs, are presented step-wise as illustrated in the research methodology (see Figure 1).

Step 1: Identification of business performance antecedents through literature research

The identification and analysis of a wide array of relevant performance measurement models listed several constructs and their measuring criteria; albeit, not all of them are relevant to private higher education. Table 1 reflects a list of the selected studies, which by no means reflect the full list of models consulted, that was used to identify antecedents to measure business performance. These studies are generalised over an array of industries and were not specific to higher education. The table also shows the specific construct, industry and then the antecedents the researchers employed to measure the performance of the specific industry. More specifically, Table 1 lists business performance models that originated from an array of industries; not only performance models founded in higher education. The reason is that public education institutions were dominant in South Africa, and that most models in education are unfit for application in private education institutions. Subsidies and educational goals mainly trumps private business performance goals in the public institutions. This absence of applicable and adaptable models necessitated a fresh approach where all business functions in the private sector required scrutiny; in practice this means that scrutiny of a variety of business performance models, in different business industries, are required to identify and adopt antecedents of business performance that could be relevant to the measuring performance in a PHEI. Table 1, therefore, lists a variety of business performance models, the business performance antecedents relevant to PHEIs, and also the respective measuring criteria that could be used to measure the business performance in PHEIs.

TABLE 1: BUSINESS PERFORMANCE MODELS AND ANTECEDENTS EXAMINED

Researcher(s)	Type of construct	Industry	Antecedents employed
Alotaibi and Liu (2015).	The study focused on managing customer service and business performance	IT	• Service quality • Business process time • Business process cost • Customer satisfaction
Anderson (2000)	Strategic planning has an impact on performance across industries and works hand in hand with autonomous actions.	Various industries	• Return on assets • Sales • Growth • Innovation
Anderson (2001)	Enhancement of an organisation's communication capacity using IT and business performance.	IT	• Profitability • Sales • Growth • Innovation
Ansoff & Sullivan (1993)	Strategic success is related to optimised profitability when a firm's strategic behaviour is aligned with its environment.	Various industries	• Return on investment • Return of equity
Baldrige Excellence Framework (2016) • Pricewaterhouse-Coopers 2017 • Public Sector Practice 2015 • Charter School of San Diego 2016	Assist organisations to assess their improvement efforts, diagnose their overall performance management system, and identify their strengths and opportunities for improvement	Manufacturing Education Small business various	• Performance • Employee • Leadership • Customer • Strategy
Barnard, Kritzinger & Kruger (2011)	The paper focused on macro-environmental issues that have an impact on businesses, particularly location.	SMME	• Location • Turnover • Interest / Rental rates • Government • Customer • Technology
Barr and McClellan (2018)	The book focuses on the budgets and financial management in higher education.	Higher education	• Student • Technology • Governments • Quality • Competition

Bergeron, Raymond & Rivard (1999)	The concept of fit in IS research.	IT	• Profitability • Growth • Sales • Financial resources • Public image • Client loyalty
Chinomona & Poee (2013).	Logistics is the backbone of supply chain management.	Logistics	• Quality • Cost • Delivery • Reliability • Flexibility
Corporate Performance Management (CPM, 2014) • US Navy 2014 • Goodyear tyres 2013	The focus is on monitoring and managing an organisation's performance, according to Key Performance Indicators (KPIs)	Manufacturing Supply chain	• Strategy • Budgeting • Processes • Costs • Planning • Profitability
Cragg, King & Hussain (2002)	This study focuses on measuring the alignment of business strategy and IT strategy among small UK manufacturing firms and then investigates the link between alignment and performance.	IT	• Profitability • Sales • Growth • Financial resources • Public image • Client loyalty
Croteau & Bergeron (2001)	The focus is on finding the direct link between IT management and organisational performance. Allows the determination of what profile of technological deployment best assists companies to enhance their performance which leads to meeting the business strategy.	IT	• Sales • Growth • Profitability
Dess & Robinson (1984)	Objective measures are selected to measure aspects of organisational performance that are reliable and valid. This study investigates the usefulness of subjective performance measures, obtained from top management teams when problems are encountered in obtaining accurate performance information.	IT	• Sales • Growth • Return on Asset • Organisational performance

Durand & Coeurderoy (2001)	The study combines the dimensions of a firm's age, the order of entry and strategic orientations, as well as industry conditions, to establish a contingency model of performance analysis.	Manufacturing	• Profitability • Return on assets • Growth of sales • Growth of margins • Growth in the number of employees
European Foundation for Quality Management Excellence Model (EFQM, (2015) • BMW 2014 • Ooredoo Qatar 2014 • Schwarz 2013	A self-assessment framework for measuring the strengths and areas for improvement of an organisation across all of its activities.	Various	• Leadership • People • Policy and strategy • Partnerships and resources • Processes • Customer • Society
Gopala-Krishnan (2000)	The study focused on two dimensions of innovation (speed and magnitude) and two measures of a firm's performance (objective financial reports and executive ratings of perceived effectiveness). The results showed that innovation speed resulted in positive financial performance, rather than executives' positive performance. Innovation magnitude is associated with executives' positive perception of firm performance, even though it does not have a direct increase in a company's financial returns	Banking	• Financial performance • Rating of effectiveness • Return on assets • Efficiency of operations • And the quality of services
ISO 9000, 9001, 9002, 2015 • Toyota 2015 • SABS 2015	Designed to assist organisations to ensure that they meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to a product	Various	• Customer • People • Leadership • Process • System • Supplier
Kaplan and Norton, 1992	Focuses on the most important activities inside of an organisation and to highlight how the organisational strategy can lead to the final success	Various	• Financial • Customer • Internal processes • Learning and growth

Lepmets et al. (2012)	The focus was on IT service quality attributes that could be measured to improve IT service quality.	IT	• Products • Processes • Customers • Stakeholders • Flexibility
Mehra (1996)	The study focused on the implications of industry competitive patterns at the level of resource accumulation as well as the relationship between resource endowments and firm performance in the US banking industry.	Banking	• Profitability • Productivity • And the ability to raise long-term resources
Mulyono (2016)	The study focused on business school competitiveness.	Business Schools Education	• Leadership • Customer • Business processes • Culture • Government
Neneh & Van Zyl (2013)	This study investigates empirically the various business practices implemented by SMEs and how these business practices impact on their optimal performance.	SME	• Marketing • Strategy • Human resources • Finance
Papke-Shields & Malhotra (2001)	The study investigates the role of influence and involvement in achieving better business performance. This is expected to occur via alignment between the organisational and manufacturing strategies rather than directly.	Manufacturing	• Growth • Profitability
Peek, Rosengren & Kasirye (1999)	The study was on business strategy by US Bank owners which were foreign owned as compared to domestic banks' performance level.	Banking	• Financial ratios • Capital ratio • Non-performing loans • Return on assets
Rogers & Bamford (2002)	The focus was on the co-alignment of strategy, planning and information in top-performing banks, and the performance implications of fit are revealed.	Banking	• Return on assets (ROA) • Growth • Profitability
Rogers & Bamford (2002)	The focus was on the co-alignment of strategy, planning and information in top-performing banks, and the performance implications of fit are revealed.	Banking	• Return on assets (ROA) • Growth • Profitability

Soto-Acosta et al. (2016)	The study investigates the standpoint of sustainable entrepreneurship on business performance.	SME	• Turnover • Customer • Market share • Planet • Profit • People
Total Quality Management (TQM) • Romania 2016 • Ford 2015 • MacDonalds 2015	The focus is on meeting customer needs and organisational objectives.	Various	• Customer • Employee • Planning • Leadership
Venkatraman (1989)	The study focused on conceptualising and developing valid measurements of a strategy construct, termed strategic orientation of business enterprises. The study related business strategy to business performance.	Various	• Growth • Profitability
Woodside, Sullivan & Trappey (1999)	Assessing the relationship among strategic types, distinctive market competencies and organisational performance.	Banking	• Return on investment • Profit • Customer satisfaction

Step 2: Qualitative research: Interviews with executive managers and board members

Based on their popularity of use in the literature review of the models’ antecedents and scrutiny in the interviews with the eight executive board members and managers of the PHEIs, the first list of 24 antecedents was identified from Table 1. These antecedents were regarded to be relevant to PHEIs. They are listed in Table 2.

Step 3: Qualitative research: Group meeting and using the Meta-Technique to reduce the business performance antecedents from 24

The aim of Step 3 was to refine the set of 24 antecedents. In this case, the Meta-Technique (Coetsee, 2002) was used where the panel of executives and board members scrutinised each one of the antecedents as a group and then to rate them in order of importance. Open discussions on each antecedent and its potential value in performance reporting in PHEIs lead to some seven antecedents which were identified as not so important or their repetitive characteristics. These antecedents have been excluded because they were either part of or included in the retained antecedents above. Alternatively, others were regarded as unreliable measures of performance, or they have infrequently been used as measuring antecedents in the listed studies. The retained and discarded antecedents are shown in Table 2.

TABLE 2: ANTECEDENTS CONSIDERED

NUMBER	ANTECEDENT	DIMENSION	REMARK
1	Sales	Finance	There is sufficient support of these business performance antecedents from the literature to include them in the conceptual model. These antecedents were retained for empirical scrutiny.
2	Growth	Finance	
3	Profitability	Finance	
4	Return on investment	Finance	
5	Customer	Customer	
6	Service	Customer	
7	Stakeholders	Governance	
8	Technology	Method of delivery	
9	Innovation	Method of delivery	
10	Leadership	Student support	
11	Society	Governance	
12	Quality	Governance	

13	Legality	Governance	
14	Marketing	Marketing	
15	Communication	Marketing	
16	Competition	Marketing	These antecedents have been excluded since they were either part of or included in the retained antecedents above. Alternatively, some have also been discarded because they are unreliable or infrequently used in similar models.
17	Human resources	Governance	
18	Processes	Method of delivery	
19	Learning	Method of delivery	
20	Financial indicators	Finance	
21	Strategic planning	Finance	
22	Location	Finance	
23	Return on assets	Finance	
24	Culture	Student Support	

Step 4: Additional literature research on business performance antecedents and measuring criteria

The final selected 15 antecedents to measure business performance of PHEIs are discussed next. In this case, the antecedents are theoretically evaluated for relevance and detail to ascertain that the antecedents and its measuring criteria are worthy of inclusion in the conceptual model.

Sales

According to the Collins Dictionary (2017), the definition of sales is the number of goods, products, or services that a company sells within a certain period. Sales are an activity that is affected by other factors such as include product design and quality, packaging, distribution and reach, as well as pricing, the economy, advertising and technology (Belch and Belch, 2015). Further sales are strongly influenced by, factors such as the changes in the economy, competitive landscape, the power balance in politics, and market behaviour. These changes can create new opportunities or threats (CSO Insights, 2016). In essence, sales include the operations and activities involved in promoting and selling goods or services at an acceptable price (Tenfold, 2018). Sales are also described as turnover. Hence it represents the income of the PHE before costs are subtracted. A too low turnover (sales figure) inevitably leads to financial ruin because not enough funds are generated by the PHEI. In the case of PHEIs sales is influenced by the number of students enrolled after recruitment, the price, duration and the way the

programmes are offered (contact, block-release or distance learning) (Lei, 2012). Lei deduces that student recruitment and eventual sales (number of enrolled students) is the key to the continuity and good performance of PHEIs. Kargic and Poturak (2014) agree that the number of students and the price they pay for private higher education are key factors that determine the market share of the PHEI. Here Thian et al. (2016) add by stating that PHEIs should aim to serve the personal interest and requirements of students as clients and should act as owners of programme quality. Their fundamental goal should be to maximise profit through sales by getting seats filled in their programmes by offering the type of programmes in demand. This is important because multiple studies showed that PHEIs are not government supported financially while they compete against public institutions that receive subsidies; this means that PHEIs have to be more corporate and entrepreneurial because they rely on tuition fees or sales only as a mainstream income source. PHEIs should also attempt to find other sources of income to survive (Altbach et al., 2009; Levy 2010; Maslen, 2011). In this case, contracted consultation and specialised executive education could offer secondary income streams (Bezuidenhout and De Jager, 2014; Mabizela, 2007).

It is clear that PHEIs operate as private business entities with a corporate nature of management focusing on sales and profit maximisation (Thian et al., 2016). From the above literature, it is clear that the sales are measured from the number of students enrolled, Sales is influenced by quality, price, a method of delivery and type of programme; a PHEI should get this combination right to generate sufficient sales to obtain the required performance.

Growth

Growth is measured over a specific time and in financial terms, such as sales or profits. Growth could also be further defined by stating this measurement over the different academic programmes a PHEI offers. This would enable the PHEI to differentiate its programmes offered and respective services offered to the market (Lamb et al. 2016). During the growth period organisations are faced with challenges of completion and the marketing mix has to be adapted to the new environment to increase sales and service changing market demand. These adaptations would include additional features and support services, further investment in marketing initiatives to maintain and extend market share, increase brand awareness and also to introduce more programmes and extended services to grow (De Meyer et al., 2017). Additionally, the Hanover Research Report (2017) adds that PHEIs should mobilise their alumni networks, activate current students to be brand ambassadors, maximising merchandising

potential by providing branded clothing and gifts, and staging events such as open days, conferences, seminars and forums for students and businesses. Growth is reliant on sales and the marketing mix and has a direct relationship to meeting financial targets (Thian et al., 2016). In this argument, Thian et al. (2016) stress that PHEIs should be innovative and responsive to the market by offering niche programmes and keeping pace with current trends. Acting without global restrictions public institutions face, PHEIs can operate globally, entering into Africa and other countries with the consent of these governments' education departments (PWC, 2017).

Ghana is a typical case of the trend throughout the world where PHEIs are rapidly growing in number. Before 2000 there were less than 15 PHEIs. However, by 2015 that number had grown to 106, compared to its 83 public institutions (Akplu, 2016). Local and foreign partnerships have increased and have an impact on growth in private higher education. Investments in private higher education are profit-driven, stressing the importance of growth. The three most prominent international PHEIs are Laureate, Apollo and Whitney International; all three these institutions regard growth and profit maximising key to their investments (Levy, 2015a).

Profitability

Profitability is key in the decision on reinvesting in a business. Return on investment is directly linked to profitability. The same holds true for a PHEI (Marginson, 2017). This return earned constitutes the primary reason why companies reinvested in a PHEI; this becomes a source of financing for future growth and expansion of capacity (Longenecker et al., 2017). Profitability is when revenues (sales) exceed the total business costs (Kotler and Keller, 2016). Investors and business owners aim to provide a good return on their investment by investing in businesses that generate profits constantly; this increases the wealth of the shareholders (Bateman and Snell, 2015:543).

Profitability in higher education institution focuses on increasing financial sustainability, economic independence and flexibility of the management structure to increase efficiency. Monitoring both the financial sustainability and financial management are critical to identifying challenges experienced in the higher education intuition. This is achieved by proper budget monitoring, analysing past trends and analysis of current and future scenarios to recommend strategies to be profitable (Sazonov et al., 2015). A PHEI business operates similarly to any other private business venture in that the main aim is to be profitable. This should then be an important antecedent to measure at a PHEI.

Technology

Technology refers to methods, tools and techniques which enable input to be transformed into the desired output, thereby change resources into goods and services. Technology is, like the rest of the business environment, rapidly changing and is considered to be the single most significant driver of change in the external environment (Alsemgeest et al., 2017). As such businesses are forced to remain relevant by continuous investments in the new technology trends. To do so, businesses have to understand the trends, the technology that drives them and also how to apply the technology competitively (Longenecker et al., 2017). The University of Oxford (2017) found that traditional campus-based teaching and learning is highly susceptible to technology, not only in learning content delivery methods but also in support material and research. Here the digital divide is an important factor as not all students have access to broadband technology; this is especially true in South Africa (Nchabaleng, Botha and Bisschoff, 2018). Massive Open Online Courses (MOOCs), or online education enabled by technology can offer students “micro-credentials,” “nanodegrees,” “micro certifications,” or “digital badges” which aim to address the balance between usefulness and affordability (Hanover Research, 2017). This new competitive technological environment, the rising costs of higher education and the increased demands from students for more flexible and practical learning options, are challenges that higher education intuitions have adapted to. A cost-effective way to accommodate this need is with the use of technology.

Institutions both public and private higher education support the use of technology to improve pedagogy, and in this way enhance the student experience. It is envisaged that ultimately these technologies will improve student success (Navneet, 2016).

Customer

Customers, or students in the case of PHEIs, are the most important factor in any organisation because they are the source of the organisation’s income. This could consist of individuals or groups who purchase the goods and services that the organisations produce (Alsemgeest et al., 2017). In the case of PHEIs groups consist of companies enrolling some students, or executive education programmes. The rapid growth in higher education and also in PHE is estimated to be that a PHEI will educate one in three students globally by 2020 (Levy, 2015b). Technology has breached distance and access, and resultantly educational institutions compete globally for students. This requires continuous

improvement and adjusting to the needs of the students in the learning environment (Goetsch and Davis, 2016).

Typically, the new generation is highly schooled in technology and familiar with the online environment; in fact, they demand academic access via mobile phones and being able to submit assignments electronically. If they are not satisfied with an academic programme and its support service, they will discontinue enrolling at the institution and simply choose an alternative online supplier that satisfies their needs. Hence customer satisfaction is a critical competitive trait. Here satisfaction includes not only service levels, but also the quality of the academic programme (Khalid, 2014).

Innovation

Innovation can be described as creating or perfecting of new products or services (Longenecker et al., 2017). It can also be regarded as the use of a new idea to develop a better product, service, process or technique (Alsemgeest et al., 2017). Typically, the traditional campus-based teaching methodology employed by PHEIs have used, innovated to virtual learning environments such as Blackboard and Moodle primarily used for course administration, storage of course content and additional resources, while flipped classrooms have influenced pedagogical methodology by offering a way to blend online and class learning (Hanover Research, 2017). Even these innovations are under development and innovations in education frequently enter the market. With this rapidly changing and disruptive higher education environment, PHEIs have to be flexible and agile to meet the needs of students. Institutions have to support innovation in teaching and learning pedagogy, as well as the matching requirements of investment in information technology to be relevant and innovative (Navneet, 2016).

Service

Private higher education is part of the services sector; this is the largest sector of the economy. Service means providing customers (or students in this case) with what they want or need when they want it, and in the format, they want it (Bateman and Snell, 2015). By meeting the needs of customers continually, a mutually beneficial relationship is established, making the service encounter easy and enjoyable for the customer. Education is regarded as a service that processes the customer; similar to a dentist or doctor treating a patient; in this case, the mind of the customer is processed via education (Wirtz and Lovelock, 2016). Service is further seminally classified into five important service-antecedents by Parasuraman, Zeithaml and Berry (1998). They are reliability, empathy, assurance,

tangibility and responsiveness. PHEIs should address all five these service-antecedents when they serve their students in higher education. The tangibility antecedent ties in closely with information technology because of its ability to supply the required service (Boshof, 2014). Interestingly mobile phone and electronics have become the new tangible measure of service quality. Competing with education services in the competitive commercial service environment in the global marketplace creates increasing pressure to higher education institutions to satisfy the needs and wants of the students (Altbach, 2015). If they do not receive the level service from one institution, they will move to the next institution (Navneet, 2016).

Leadership

Research by Shaikh et al. (2017) indicated that the Fourth Industrial Revolution has a severe impact on leadership. Rapid change is disruptive to leaders and the PHEIs are no exception. These quick technological changes add to leadership pressures and the traditional view of leading the team differs substantially from reality in the modern economy. Here Shaikh et al. (2017) indicate that, for example, when managing teams, these modern team members may never have met, reside in different countries and time zones; yet they are a team because of their specific skills and they work on the same project. Leadership is thus also affected by the changes in the business environment and requires adapting rapidly to maintain competitiveness. The various perspectives of differences between the industry sectors also complicate matters further (Goetsch and Davis, 2016).

Due to globalisation and the rapid changes in the higher education environment extraordinary leadership skills are required. Innovation and new methods of programmes delivery are important for private and public higher education institutions. Leadership is a vital factor to influence innovation, increased goal-directed behaviour on the part of academics and administrators, leading organisational change, developing trust amongst employees, and facilitating employees to exceed their performance expectations (Al-Husseini and Elbeltagi, 2016).

Return on investment

The primary aim of any business is to increase the wealth of its shareholders (Marginson, 2017). To do so business has to make a profit for the shareholders to share in the wealth. This is termed the return on investment (ROI) and can be defined as a business's profitability relative to the number of its

investments (Longenecker et al., 2017). ROI is one of the key business performance metrics and evaluated against past performance measures (Carol et al., 2017).

With the massification of higher education, many countries have PHEIs which would welcome investors. As discussed by Yan and Levy (2015) PHEIs focus on making a profit; this is similar to any other business. This means that PHEI competes with other businesses in other sectors for investments. Interestingly, PHEIs in Malaysia (and in other countries) are funded and financed by entrepreneurs or private investors. These private investors aim to receive a viable return on their investment (Thian et al., 2016), and therefore, PHEIs should make competitive profits to draw investors.

Stakeholders

Stakeholders can generally be described as individuals or groups who can either affect or are affected by the performance of its business (Longenecker et al., 2017). However, more specifically there are two views regarding stakeholders. The first is the narrow view that refers to a group of individuals that have direct relevance to the business. These include the employees, owners or financiers, suppliers and financial institutors. The second is the broader view which looks beyond the stakeholders within the organisation. This includes the community, government, media and competitors, for example (Botha et al., 2016).

According to Levy (2015b), PHEIs are more hierarchical and centralised than public institutions. PHEIs are generally accountable to a narrow group of direct stakeholders while public institutions have more dispersed accountability to the broad public. In the South African context, the PHE stakeholders include the DHET, Department of Higher Education and Training, Council for Higher Education, South African Qualification Authority, students, families, owners, employees, SARS, financial institutions, the economy of the country and professional bodies such as the South African Business School Association. Van Schalkwyk and Steenkamp (2016:589) suggest in their study of PHE in South Africa that education management, and Deans, in particular, have to focus on providing quality service to their stakeholders.

Society

The society is the people living in a particular country or region and they share customs, values and laws (Botha et al., 2016). Regarding the business environment, the society is perceived to be the community they serve; this could be at the present location or even in other parts of the world

(Alsemgeest et al., 2017). In both public and private higher education, the society relates to the student population within the geographical reach of the institution. Some institutions may have a direct impact on their immediate geographical area if they are contact-based institutions. In PHE, and in particular distance education, the society is removed from the actual office of the institution. The extended reach of distance education to far-away communities collapses of the socialist ideology and increase free market economies and the societal factors that affect public and PHEIs (Akplu, 2016).

Quality

Quality can be described as the degree to which the client or customer is satisfied with the performance of the product or service acquired. It is a total collection of experiences that should meet the customers' expectations (Strydom et al., 2017).

Consumers of a product or service consider two quality dimensions (Schiffman and Kanuk, 2014):

- The intrinsic dimension focuses on the product or service. This includes the physical characteristics of the product or service. In the private higher education scenario this could mean the faculty involved in the institution.
- The extrinsic refers to the external to the product or service. This could include the price, brand image and physical infrastructure. Especially the brand image is important in education services. Students would, for example, pay substantially more to study at Ivy League schools.

In South Africa, quality in higher education has various meanings and interpretations. However, the Council of Higher Education (CHE) which is the governing body of quality education in South Africa, includes characteristics in their quality definition such as fit for purpose, value for money, individual and social transformation within an overarching fitness for purpose framework (CHE, 2001; Stander, 2017). Historically, the PHEIs earned a poor reputation because they offered poor quality education. To overcome this perception PHEIs started to address these negative perceptions by offering quality education, building credible brands, earn credibility with the CHE (2016) (and other stakeholders), start building a good reputation and improved their quality of service delivery to students (Noaman, 2017; Van Schalkwyk and Steenkamp, 2016). These steps were important because the increased competition from public and other private providers tapped into their market shares. Also, added scrutiny from the regulators and government were implemented to ensure PHEIs do meet the imperatives of the state while also offering a quality education at value for money price (Thian et al., 2016).

Marketing

The result of marketing is sales. All marketing activities revolve around a product or service which is distributed to a customer at a specific price (Kotler and Armstrong, 2017); in education, Levin (2018) refers to freedom of choice. Typical marketing tools are communication, logistics, advertising, direct selling and public relations (Lamb et al., 2016). In the PHE environment, the Hanover Research Report (2017) indicates that marketing and branding are valuable attributes to increase student enrolment, funding, and other advantageous outcomes such as brand building and brand preference. Various modern communication platforms (such as email, social media, websites and mobile phone applications) are used to market higher education institutions. Public Relations are also applied via these platforms and newsworthy articles and events are posted to inform the public press, alumni and students. A noteworthy finding of the Hanover Research Report (2017) is that a “new type of student” now enters the higher education landscape in both public and PHEIs. These educational institutions should adapt their marketing campaigns and methods to fit the new student behaviour and their specific needs. Technology had a huge impact on the higher education market, transforming not only service delivery but also marketing campaigns to fit. The importance of a proper marketing campaign cannot be over-emphasised because the effect of poor sales figures is prevalent in profitability, return on investment and the longevity of the institution.

Communication

Communication has many purposes in any organisation. In an education institution communication can be used for management communication, marketing purposes, administration, academic feedback (or other academic information) and public relations, to name but a few. The communication process is dependent on the sender (or source of the message), the medium that used (voice, text or social media), and finally reaches the receiver (Goetsch and Davis, 2016). Traditionally effective communication reached the intended receiver via communication channels such as television, newspapers and radio, however, in the modern market environment these channels of communication fade in comparison to social media and applications on mobile phones (Kotler and Keller, 2016). Important to PHEI is feedback communication where students can communicate with the institution. This offers an opportunity to the institution to determine the students’ experience and resultantly improves where lower levels of satisfaction are experienced (Parasuraman et al., 1998).

Makhitha (2017) points out that technology created almost instant communication which enables quick problem-solving and corrective actions via two-way communication. It also allows for the exchange of ideas and approaches which ultimately leads to the overall success of the student and the PHEI (Navneet, 2016).

Legality

Legality generally refers to rules and regulations established by the government and the minimum standards for responsible behaviour. It is also the society’s code of practice of what is right and wrong (Botha et al., 2016). Legislation, rules and codes are set to manage and guide the institution in the desired manner as established by the government and also by the institution. In this case, the PHEIs need to comply with legalities set out by the government and the CHE. Compliance with DHET, CHE and other government entities is paramount to the success of the PHEIs in South Africa because compliance to all legalities is required to offer specific academic programmes (CHE, 2016; DHET, 2016). Non-compliance leads to the deregistration of the programme and the institution are no longer allowed to offer that specific qualification according to the Higher Education Act no. 101 of 1997 and Continuing Education and Training Act 27 of 1997 (as amended in 2006) (SA 1997; SA 2006). Therefore, legalities are an important business performance measure to adhere to.

Step 5: Final list of business performance antecedents and its measuring criteria

Stemming from the literature study a list of measuring criteria was compiled to measure each antecedent. These criteria originate from both the literature and qualitative research performed. Table 3 shows a summary of the antecedents and their measuring criteria that can be employed to measure business performance of PHEIs. The table also indicates which interviewee supported which antecedent and which specific measuring criterion. The supportive literature for the measuring criteria is furthermore shown in the table. For example, considering Antecedent 1 (*Sales*) its Criterion 1 (*Cost of the programmes*); the next column values (1, 2, 3, ...8) mean that all eight the interviewees regarded this criterion relevant to measure the antecedent *Sales*. Similarly, when considering the column named *Literature support*, it is evident that the authors Belch and Belch (2015) support Criteria 1 (*Cost of the programmes*) and 2 (*Sales targets achieved*) to measure the Antecedent 1 (*Sales*). The rest of the entries in the table is interpreted similarly. The table thus indicates both the literature and empirical support of the criteria and antecedents

TABLE 3: ANTECEDENTS, MEASURING CRITERIA AND ITS LITERATURE AND EMPIRICAL SUPPORT

ANTECEDENT	CRITERIA	INTERVIEWEE SELECTED CRITERIA	LITERATURE SUPPORT	LITERATURE SUPPORTED CRITERIA
1. Sales	1. Cost of the programmes 2. Sales target achievement 3. Number of short courses sold 4. Number of students enrolled 5. Number of returning students enrolled (Criterion 6: Omitted)	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Belch and Belch (2015) Collins Dictionary (2017) CSO Insights (2016) Lei (2012) Kargic and Poturak (2014) Thian et al. (2016) Bezuidenhout and De Jager (2014)	1, 2 3, 4, 5 1, 2 1, 2, 3, 4, 5 1, 2, 4, 5 1, 2 1, 2, 3
2. Growth	7. Increase market share 8. Increase in student numbers 9. Increase in new programmes 10. New regions 11. Saturation of SADC and SA markets 12. Entered into international partnerships 13. Leverage alumni network	2, 4, 5, 6 1, 2, 3, 8 2, 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 8 3, 4, 7 1, 3, 6, 7	Lamb et al. (2016) De Meyer et al. (2017) Hanover Research (2017) Thian et al. (2016) PWC (2017) Akplu (2016) Levy (2015a)	7, 8, 9 7, 9, 10 11, 12, 13 7, 8, 9, 10, 12 10, 11, 12 7,10,11 7,8,9,10,11,12
3. Profitability	14. Expense control 15. Increase in revenue 16. Sustainable	2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 5, 6, 8	Longenecker et al. (2017) Kotler and Keller (2016) Bateman and Snell (2015) Sazonov et al. (2015) Jashim (2016)	16 14, 15, 16 14, 15 14, 15, 16 15
4. Technology	17. Website 18. Social media 19. Management information systems 20. On-line learning 21. CRM software	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 8	Alsemgeest et al. (2017) Longenecker et al. (2017) University of Oxford (2017) Hanover Research (2017) Navneet (2016)	17, 18, 19, 20, 21 17, 18, 20 19, 20 20, 21 19, 20
5. Customer	22. Customer value 23. Continual improvement 24. Products offered 25. The target market for distance education	2, 4, 5, 6, 7 1, 2, 3, 6, 7 1, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Alsemgeest et al. (2017) (Goetsch and Davis (2016) Levy (2015b) Khalid (2014)	24 22, 23, 24 24, 25 22, 23, 24, 25
6. Innovation	26. Teaching and learning 27. Academic programmes 28. Embrace innovation 29. Online platforms	2, 4, 5, 6, 7 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 4, 5, 6, 7, 8	Alsemgeest et al. (2017) Longenecker et al. (2017) Hanover Research (2017) Navneet (2016)	26 28, 29 26, 27, 28, 29 26, 27, 28, 29
7. Service	30. Level of service 31. Meeting needs 32. Meeting wants 33. Considers the customer	1, 2, 3, 4, 5, 6, 7, 8 2, 3, 6, 7, 8 1, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Bateman and Snell (2015) Altbach (2015) Navneet (2016)	30, 31, 32, 33 31, 32, 33 30, 31, 32, 33
8. Leadership	34. Goal directed 35. Innovative 36. Passionate 37. Embraces organisational change	1, 2, 3, 4, 5, 6, 7, 8 2, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 7, 8	Goetsch and Davis (2016) Longenecker et al. (2017) Alsemgeest et al. (2017) Al-Husseini and Elbeltagi (2016) Yirdaw (2016)	34,35,36 34,35,36 34,35,36,37 34,35,36,37 34

9. Return on investment	38. Investment by founder 39. Profit focus 40. Monitoring expenses and revenue 41. Target driven	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Longenecker et al. (2017) Carol et al. (2017) Yan and Levy (2015) Thian et al. (2016)	38, 39, 40, 41 39, 40 38, 39, 41 38, 39, 41
10. Stakeholders	42. Government institutions influence 43. General public 44. Quality assurance bodies 45. Professional bodies 46. Shareholders control and influence	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 4, 5, 6, 7, 8 2, 3, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Longenecker et al. (2017) Levy (2015a) Van Schalkwyk and Steenkamp (2016)	42, 43, 45, 46 42, 43 43, 46 42, 43, 44, 45, 46
11. Society	47. Political changes 48. Community perceptions 49. Student population 50. The public have accepted private providers	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Alsemgeest et al. (2017) Akplu (2016)	47, 48 48, 49 47, 48, 49, 50
12. Quality	51. Meet expectations of students 52. Meet requirements of CHE 53. Fit for purpose 54. Compliance with regulations	1, 2, 4, 5, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Strydom et al. (2017) Schiffman and Kanuk (2014) Stander (2017) CHE (2001; 2016) Van Schalkwyk and Steenkamp (2016) Thian et al. (2016)	51, 53, 54 51, 52, 53, 54 51, 52, 53, 54 51, 52, 53, 54 51, 53 51, 53, 54
13. Marketing	55. Branding 56. Website 57. Social media 58. Software management 59. Physical infrastructure	1, 2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 5, 8 2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8	Longenecker et al. (2017) Lamb et al. (2016) Hanover Research (2017)	55, 59 55, 56, 57, 59 55, 56, 57, 58, 59
14. Communication	60. Personalized 61. Updated communication 62. Timeous communication 63. Student feedback 64. Tutor feedback	2, 4, 6, 7 1, 3, 4, 5 1, 2, 3, 4, 5, 6, 7, 8 3, 4, 6, 7 4, 6, 7	Goetsch and Davis (2016) Kotler and Keller (2016) Abdallah et al. (2015) Makhitha (2017) Navneet (2016)	61, 62 60, 61, 63, 64 60, 61, 62 60, 61, 62 60, 61, 62, 63, 64
15. Legality	65. CHE compliance 66. DHET compliance 67. Financial and statutory compliance 68. Regulatory bodies adherence	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Jashim (2016) CHE (2001; 2016)	67, 68 67, 68 65, 66, 67, 68

SUMMARY

The study identified 15 important antecedents from the literature review, interviews and the group session. The criteria that measure each of the antecedents have also been determined. These criteria can now be structured into a questionnaire to measure the performance of a PHEI in South Africa. The primary objective of the study was to develop a theoretical model to measure the business performance of a PHEI in South Africa. The secondary objectives were to identify the antecedents of business performance from the literature review and other sources, determine the criteria that measure each of these antecedents and integrate the variables and its measuring criteria and thereby constituting the theoretical model. The study systematically addressed these secondary objectives to reach the primary objective. The theoretical model is shown in Figure 1 while the detailed criteria and its origins required to apply the model, is summarised in Table 1.

The presented theoretical model is a combination of a theoretically and managerial experience-based model. Several theoretical studies also supported the managerial views identified by the qualitative research. Although these research processes were scientifically approached and performed, it does not warrant the authors to claim success. The model is still in its infancy. Future research required to develop the theoretical model further is to:

- Apply the theoretical model in practice by using it to collect data;
- Empirically validate the model;
- Empirically omit non-significant criteria and/or antecedents; and
- Develop a validated and “purified” model to measure business performance of PHEIs.

This empirical application should indicate if a usable base for validation and amendment of the model is possible; in that case, the study should make a significant contribution to managers and researchers investigating how to measure business performance of PHEIs.

LIMITATIONS OF THE STUDY

The study is geographically limited to South Africa and its regulatory environment. Regulations, accreditation requirements and all other operational requirements imposed by the Department of Higher Education restricts this study to the South African educational business environment. The study is also further limited by the historical focus in education in South Africa on the development of public education institutions. Private service providers have a

relative short history in South Africa's educational history, and in practice this resulted in limited private education performance information. Finally, another limitation adding to limited information on the business models of private institutions relate to the size of PHEIs. With public institutions playing a dominant role, PHEIs were relative small in comparison; only recently did private education become big business in South Africa.

AREAS FOR FUTURE RESEARCH

Two logical areas of future research originate from this study. Firstly, the model postulated in this article is a theoretical model. The model, its antecedents and the respective measuring criteria, needs to be empirically validated. The reliability of the antecedents should be tested and it is imperative that the model, in practice, does measure what it is supposed to measure, namely the business performance of PHEIs. Secondly, the model should also be subjected to either a confirmatory factors analysis or a structural equating model to determine the wellness of model fit. This would also render a verdict towards the usability of the model; in practice.

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CHAPTER 4

ARTICLE 3:

FACTORS TO MEASURE THE PERFORMANCE OF PRIVATE BUSINESS SCHOOLS IN SOUTH AFRICA

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Factors to measure the performance of private business schools in South Africa

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ABSTRACT

This article identifies the latent variables embedded within the model to measure the performance of private business schools. In the quantitative research design, 247 questionnaires, using a five-point Likert scale, were analysed after completion by private business school supervisors and managers. The data has high reliability with a Cronbach alpha coefficient of 0.974 and an excellent sample adequacy with a KMO value of 0.926. The analysis identified ten latent variables (or factors), identified using exploratory factor analysis explaining a cumulative variance of 70.56%. These are *Regulatory compliance*, *Strategic communication*, *Educational technology stack*, *Strategic finance*, *Organisational development*, *Customer orientation*, *Sales*, *Pricing*, *Socio-political influence* and *Market focus*. The study also succeeded to simplify measuring performance by eliminating 26 questions with low factor loadings (<0.40) or those that are cross-loading highly onto more than one factor from the questionnaire while retaining a satisfactory level of reliability. The results are valuable to private business school managers and to the employees wanting to measure and improve business performance of a private business school. Researchers and academia could also benefit from the contribution of the study to either build on business performance of private business schools or, alternatively, in adopting the methodology employed in this study for another application setting.

Key terms: Performance, private higher education institutions, management, measurement, success, factors, business, PHEI

JEL codes: M10; I25

LIST OF ABBREVIATIONS

CHE	Council for Higher Education
CFA	Confirmatory factor analysis
DHET	Department of Higher Education and Training
EFA	Exploratory factor analysis
HE	Higher education
KMO	Kaiser, Meyer & Olkin
PCA	Principal component analysis
PHE	Private higher education
PHEI	Private higher education institution

INTRODUCTION

Globalisation and the rapid growth of the knowledge economy have created an increased demand internationally for higher education (HE). This is even more so in a developing country such as South Africa where there is population growth of 1.45% (2017) and 1.2% (2018) (Worldometer, 2018). The inability of public education to cope with the historical increase in demand for education on all levels has resulted in an increase in private education, and also private higher education institutions (PHEIs) to fill the educational gap (Stander & Herman, 2017:206). The important role that higher education plays in economic growth is perceived as a panacea to the poverty and inequality faced by many people throughout the world. Hanushek (2016:538) specifically mentions the positive influences that higher education could have on South African economic growth and also individual economic empowerment. Here, increased knowledge capital, communication skills (Geldenhuys, 2018), exponential personal development, innovations, and inventions are key to facilitate economic growth.

South Africa needs professionals across all sectors; managers, doctors, teachers and engineers are all vital to future economic success, and education stands central to deliver these professionals. This is a matter also facing many other countries. Furthermore, the rapid transformation of economies and countries due to the fourth industrial revolution has further impacted on governments to meet the need for a skilled population that can take their countries forward. However, McGrath (2015) warns that particular skillsets are required for particular countries. South Africa, for example, is ideally suited for astrophysical skills development due to its ideal geographical location, while skills for the motor-industry are less attractive because lucrative but geographically remote export markets (such as Australia), have a competitive disadvantage in transportation costs. Identifying and delivering the required country-specific skills are paramount and reside not only with educational policies and the state, but also with private higher education to identify and enter into entrepreneurial activities to harvest the market demand in South Africa.

The higher education market demand is further fuelled by an age demographic profile of South Africa where the youth bulge in South Africa where the population of 57.4 million people has a median age of 26.3

years (WorldoMeter, 2018) and more than 50% of the population is younger than 25 years old (South Africa Population, 2018). This creates a high-demand situation to equip and skill the upcoming new workforce. However, this is a serious challenge for all countries in Africa where high educational demand, public budget constraints, the exodus or brain drain of the skilled and young workforce, and limited suppliers are a reality. In this regard, private education is a viable option for many countries to adopt to meet the need for the youth to be skilled and be of benefit to Africa.

Although the highly regulated educational environment of South African complies with the CHE, SAQA and DHET requirements to be recognised and able to operate in the country (Stander & Herman, 2017:207), the South African higher education environment, including private business schools, strives to provide unsubsidised education to its students. Furthermore, despite the fact that PHEIs may not legally use the term 'private universities', they have to adhere to similar regulations, accreditations and oversights than the public universities. In this regard, business schools in South Africa face many managerial and entrepreneurial challenges to be successful and to meet the growing demand for higher education and to educate and form the skilled workforce for the next generation of South Africans.

PROBLEM STATEMENT

There are many barriers to entry and regulatory challenges in the South African PHE market. Stringent requirements from government via particularly the CHE, the DHET and SAQA enforce quality standards in education; however, in doing so, also strain PHEIs in South Africa to comply. Some researchers (Stander & Herman, 2017:207-208) believe that quality control processes border on over-regulation. However, although they continuously present challenges that managers of PHEIs need to address and overcome to remain compliant and competitive in the educational market, the role that PHEIs has played in the education of South Africans is acknowledged by government. In addition, the National Development Plan for 2030 (SA Government, 2012) acknowledges the role that PHEIs can play in addressing the need for higher education in South Africa. In this regard, the South African government should aim to create an enabling regulatory environment for education that invites PHEIs into the education system while also remaining the guardian of quality education in South Africa (SA Government, 2012:268).

The National Development Plan aims to achieve a 25% graduation rate as well as aiming for an enrolment target of 1.62 million by 2030 in comparison to the 950 000 students who graduated in 2010; this signifies an increase of 70% graduates (SA Government, 2012:277). Public universities simply do not have the capacity to accomplish this goal, and as a result. PHEIs are part of the solution to equip and skill the people of South Africa and embrace the fourth industrial revolution.

However, for PHEs to offer lucrative business opportunities in a developing economy such as South Africa, PHEIs compete with other industries and business opportunities for investors seeking to earn a satisfactory income from their investments. In practice, this means that PHEIs must be competitive, profitable and, in general, able to perform well as a business. Measuring business performance is, however, complex and an

intricate topic. Here, Van Looy and Shafagatova (2016:1797) concur that measuring the business performance of any organisation is a critical success factor. Typical factors to be considered range from finance, customers, internal business processes, technology and also the issue of learning and development. In addition, Maulina (2018:214) highlights that businesses are also affected by external factors, which include politics, government policy, law, economy and social issues, as well as the cultural, demographic and community environment. Furthermore, other internal business factors such as human resources, marketing, profitability, production and innovation also play a role in business performance. Although various models or methods have been designed and applied to measure business performance, few delved into determining the performance of education businesses. Furthermore, given the history of the development of tertiary education in South Africa, most educational business performance models focus on public universities where subsidies and state income are the primary source of funding. This, in essence, postulates the challenge that PHEIs face, namely that inadequate research has been done on the unique challenges and performance indicators that PHEIs face if they want to measure their business performance in the South African business environment. This study, therefore, aims to focus on identifying the factors that are important to measure business performance of a PHEI.

RESEARCH OBJECTIVES

The primary objective of this article is to identify the latent variables (called factors) embedded within a theoretical model that measures the business performance of private business schools.

This primary objective is achieved by the following secondary objectives:

- Scientifically simplify the questionnaire
- Identify the underlying factor structures
- Measure the reliability of the data and the factors
- Determine the relationships (if any) between the factors

LITERATURE REVIEW

The literature study consists of three key elements. Firstly, it provides theoretical support to underpin the research methodology and the statistical techniques used; secondly, to substantiate their suitability for this study; and thirdly, to provide theoretical support for the factors identified from the results. These factors could be confirmatory of existing literature in other application settings, or they could be new factors that were identified by the analysis.

In addressing the primary objective of this study, to identify latent variables embedded in the data, this study employs factor analysis. Two gatekeeper tests are required to successfully employ factor analysis as multivariate statistical technique; the measure of sample adequacy and sphericity, which refer to the inter-relationships between the variables.

Factor analysis

Factor analysis originated in the early 1900s. Factor analysis aims to find the simplest way to interpret the data obtained (Harman, 1976). Initially applied in human ability studies by Charles Spearman in the development of the *Two-factor theory*, factor analysis sparked a number of research projects based on the principles of factor analysis (Harman, 1976:159). Although initially applied to human behaviour and psychology (Kerlinger, 1973:659), the advantages of factor analysis were quick to migrate towards other disciplines such as the social and behavioural sciences, medicine, management, marketing science and even towards economics and geography as a suitable multivariate data analysis tool (Yong & Pearce, 2013:79).

The main function of factor analysis is to simplify the dataset in fewer, more manageable summarised variable groups. These groups are called factors, which allow for easier comprehension, interpretation and discussion (Yong & Pearce, 2013:84). As a result, factor analysis simplifies measures by producing meaningful patterns in a group of variables (Child, 2006), and thereby regrouping the variables into a reduced set of factors (Yong & Pearce, 2013; Field, 2013; Pallant, 2013). Factor analysis can also be used to determine the validity of factors and its measuring criteria; in practice, this means that the criteria measuring a specific antecedent or construct can be confirmed as true measures of the specific construct (Patel, 2015). Many studies have successfully applied factor analysis to do so and to weed out unworthy measuring criteria from measuring instruments (for example Bisschoff & Moolla, 2014; Imandin, Bisschoff & Botha, 2016; Fields & Bisschoff, 2013a; Shaikh, Bisschoff & Botha, 2017).

The two main factor analysis techniques are confirmatory factor analysis (CFA) and exploratory factor analysis (EFA); these techniques are discussed below.

Confirmatory factor analysis (CFA)

In essence, the difference between the two approaches is that CFA is used to confirm previously identified factors in a new application setting. Exploratory factor analysis sets out to identify new factors; this means that no specific model or variable structure exists to fit the data. This means that confirmatory factor analysis is used later in the research process to test specific existing hypotheses or theories regarding the structure of the set of variables (Pallant, 2013:179). It is more complex and sophisticated and is used when the researcher anticipates or hypothesises that a specific application setting could be explained by a specific variable structure; confirmatory factor analysis then determines whether this application setting indeed fits the hypothesised model and its different underlying dimensions (Patel, 2015:2). The objective of CFA is therefore to identify the measurement model that best describes a specific set of data (Eaton & Willoughby, 2018:104), and thereby to check whether the model proposed by the researcher fits, or appropriately describes, the correlational groupings of items in a specific dataset by developing a model, estimating the model's parameters, as well as calculating the model-fit statistics and model refinement (Eaton & Willoughby, 2018:108).

Exploratory factor analysis (EFA)

Exploratory factor analysis is a multivariate statistical method to investigate whether a number of variables of interest are linearly related to a smaller number of unobservable factors (Tryfos, 1997). In doing so, it attempts to uncover the complex patterns in the dataset and simplify it into a smaller, more understandable set of variables (which is normally unobserved) (Child, 2006). Pallant (2013:179) further states that exploratory factor analysis is used in the initial phases of research to obtain evidence about the interrelationships among a set of variables. Resultantly, the exploratory nature of the technique is usually a first step to reduce the dataset into fewer, more understandable variables (Yong & Pearce, 2013:79), especially in cases where existing models do not exist or established variable sets have not yet been identified (Samuels, 2016). In practice, this means that the researcher does not know how many factors there are (if any) and exploratory factor analysis can then be used to determine the factors, their variance explained and also how many factors actually exist that better explain the original data (Patel, 2015). As a result, exploratory factor analysis is used mainly to better understand the variables and their grouping into fewer factors without losing their original meaning.

Two forms of exploratory factor analysis exist, namely factor analysis (FA) and principal component analysis (PCA). Despite linguistic differences caused by the labelling of the factors (generated by the factor analysis), and components (produced from the principal component analysis) (Samuels, 2016), factor analysis is preferable because it attempts to provide a better fit the variable groupings (factors) to the data. It does so by rotating the factor axes, and thereby succeeds to produce a better explanation of each factor as measured in their respective variance explained. The factors are 'rotated' so that it is easier to interpret while they do not lose their original meaning.

The next stage in the process is to determine or select the method of rotation. The one rotational technique is an orthogonal (uncorrelated) rotation where the angle between the axes is kept constant. This makes for easier interpretation and reporting, but the researcher is required to make more assumptions to label the factors (Pallant 2013:183). Orthogonal rotation is used to explore new datasets and variable structures and has the advantage that it attempts to maximise the variance explained by the data in fewer factors (Field, 2013:796). The more popular orthogonal rotational techniques are varimax, quartimax and equamax. The alternative rotational method is the oblique rotation, which is more difficult to interpret, report and describe. This method is usually used when the factors are correlated or established (Pallant, 2013:183). Oblique rotation methods include direct oblimin and promax rotations (Field, 2013:796).

In exploratory studies, such as this one, the most common rotation used is the orthogonal varimax rotation because this rotation disperses the maximum factor loadings so that most of the variance are explained by data (Field, 2013:796). Furthermore, varimax rotation reduces the variables that contain high loadings across the factors and thereby reduces the probability for strong dual-loading variables (Pallant, 2013:184; Young & Pearce, 2013:84). This study selected the orthogonal varimax rotation, mainly because of its ability to successfully extract factors in exploratory research settings (Shaikh et al., 2017; Hamid, 2015; Naidoo, 2011; Fields & Bisschoff, 2013b).

The cut-off factor loadings to develop a conceptual model in this study retained only those criteria with factor loadings of 0.40 and higher; this decision criterion was implemented based on the success of similar research in various application settings (Shaikh et al., 2017; Hamid, 2015; Bisschoff & Moolla, 2014; Fields & Bisschoff, 2014; Naidoo, 2011;). The study aimed for a 60% cumulative variance explained as this signifies a good fit to the data (Field, 2013:672). Noteworthy, however, is that 50% is considered a satisfactory variance explained in exploratory research (Samuels 2016:2) and was set as the lower limit for the variance explained. The number of factors to extract was based on the eigenvalues to be equal to or higher than 1 as the initial guideline (Field, 2013:670), but the refined factor extraction methodology developed by Mishra (2008 in Patil et al., 2008:162) in their parallel research engine, was used to ascertain that the correct number of factors were extracted. In cases where the number of factors to be extracted differed, the parallel research engine was used as the definitive measure.

Exploratory factor analysis requires the key gatekeeper statistics or tests to be meaningful in interpretation and data analysis. These tests and its decision criteria are discussed below.

Kaiser-Meyer-Olkin (KMO) measure of sample adequacy

The Kaiser-Meyer-Olkin (KMO) measures whether the sample is adequate; this means that there have been sufficient data points used to provide an adequate sample. According to Patel (2015:3), interpretation of the KMO values is that values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are very good and values above 0.9 are regarded as superb. Furthermore, Osborne, Costello and Kellow (2014:17) indicate that the KMO statistic measures whether the data collected by the sample is adequate for analysis and that its results fluctuate between 0 and 1. If a value is near to 1, this signifies condensed correlation patterns and the factor analysis should produce distinct and reliable factors. If there are values below 0.5, the researcher has to either collect more data or reconsider the variables to be included in the analysis (Field, 2013:1976). In this study, exploratory factor analysis is pursued and the KMO as measure of sampling adequacy should be equal to or higher than 0.70 to be considered as acceptable (Hassan, 2016:889; Mbuya & Schachtebeck, 2016:232).

Bartlett's test of sphericity

Sphericity is a condition where the variances of the differences between all combinations of related groups are equal (Laerd, 2018). Bartlett's test of sphericity is also a secondary measure to test sample adequacy (Field, 2013:1980), because if the sample is inadequate, the sphericity should also portray insignificant values that are higher than the maximum significance level of 0.05. This test specifically examines whether the variance-covariance matrix is proportional to the identity matrix, and therefore effectively tests whether the group variances are similar in nature. If so, the off-diagonal elements would be approximately zero, which means that the dependent variables are uncorrelated and therefore indicate that factor analysis is a suitable multivariate technique to apply to the specific dataset (Field, 2013:2467). Bartlett's test of sphericity will usually be significant at a value of less than .005 (Field, 2013:2005; Pallant, 2013:190). In

practice, this means that sphericity guides the researcher towards determining how well the extracted factors explain the research setting.

Reliability

The Cronbach alpha is a statistical test performed to indicate the overall reliability as a measure of the internal consistency of the data collected (Mbuya & Schachtebeck, 2016:232); coefficients between 0 and 1 are displayed as reliability indicators (Hassan, 2016:891). High reliability implies that similar results (in this case factors) should present themselves in repetitive studies of a similar nature, while low reliability means that other factors should surface in such a repetitive study performed under the same conditions (Bester, 2018:60; Field, 2013:2031). It is noteworthy that a low alpha coefficient does not disqualify a factor from the current study; even factors with lower reliability remain important to the present study. Reliability, therefore, yields a verdict on the repetitiveness of factors in similar studies and, consequently, the predictability of these factors in confirmatory factor analysis studies (Field, 2013:666). Cronbach alpha coefficients are regarded to be satisfactory once they equal or exceed 0.70 (Hassan, 2016:891; Field, 2013:2037), although seminal research by Cortina (1993:98) indicated that coefficients of 0.57 and higher are also acceptable in exploratory studies. Coefficients higher than 0.8 are considered to be good, while those exceeding 0.9 are considered to be excellent (Sekaran & Bougie, 2003:327).

RESEARCH METHODOLOGY

Research design

The study makes use of a literature review and a mixed qualitative and quantitative research design to collect the data.

The antecedents for business success under scrutiny were initially identified from the theoretical study. The study included all sectors and all businesses that measure their success. Financial and sales measures as business success antecedents were abundant, but literature scrutiny soon identified other antecedents as valued antecedents towards measuring the business success of PHEIs. Typically, antecedents such as employee turnover, satisfaction, returning customers and marketing metrics are but a few of the identified antecedents. The literature study employed similar studies and models that measure business performance (and/or success) and identified a wide array of possible antecedents to measure business performance (about all types of businesses). This extensive list was impractical and many of these antecedents had little or no relevance to the business performance of PHEIs specifically. These antecedents were critically evaluated and obvious irrelevant antecedents to the application setting were discarded. Measuring criteria were then developed from the literature for each of the retained antecedents. These remaining antecedents and their respective measuring criteria were then subjected to qualitative scrutiny to evaluate, retain and to validate the business performance antecedents.

The literature-based list of drafted antecedents and their measuring criteria served as the point of departure in the qualitative study. Semi-structured interviews were conducted with eight experienced

executive managers in PHEI. The list of antecedents, as well as the measuring criteria relevant to each antecedent, was discussed with each of them to determine the importance and relevance of the antecedents and their criteria. Interviewees were also invited to add antecedents or criteria they deemed crucial in managing a PHEI. After the interviews, the initial list was amended and expanded to incorporate the interviewees' suggestions.

The next step was to further refine and reduce the number of antecedents and identify only those key antecedents relevant to PHEIs. Here, a group session with the same eight interviewees was conducted.

The interviewee profiles are:

- **Interviewee 1** is a 60-year-old director of marketing with ten years' experience in PHEI and holds a B degree in marketing.
- **Interviewee 2** is a 47-year-old senior manager with a PhD and 15 years' experience in PHEI.
- **Interviewee 3** is a 73-year-old director with over 40 years of public and private higher education experience and holds a professorship.
- **Interviewee 4** is a 65-year-old professor with over 30 years' experience in government, public education and private higher education.
- **Interviewee 5** is a 42-year-old director with a professional accounting qualification and ten years' experience in PHEI.
- **Interviewee 6** is a 40-year-old senior manager with 15 years' experience in PHEI with a professorship.
- **Interviewee 7** is a 50-year-old director with 20 years' experience in private higher education and holds a professorship.
- **Interviewee 8** is a 40-year-old senior manager with 15 years' experience in PHEI with a master's qualification.

The meta-technique (as adapted and applied by Coetsee, 2002:142-147) was employed to capture their views and identify the list of key antecedents relevant to PHEIs' performance (see Table 2).

All the interviews were recorded and transcribed to ensure no information loss occurred. After the interviews, the initial list was amended and expanded to incorporate suggestions and also consider omitting criteria the interviewees did not deem important in managing a private higher institution.

Data collection

The questionnaire contained two sections: Section A: Demographics, and Section B: Measuring criteria. Section A consists of five questions to compile the demographic profile of the respondents. Section B consists of the final 18 antecedents dealing with business performance constructs, each with its own measuring criteria. The criteria were formulated in statement format to which the respondents had to indicate their level of agreement or disagreement on a five-point Likert scale. In total, Section B consisted of 68 measuring criteria (see Table 2).

The population consisted of all full-time employees at two private business schools. These schools have a wide geographic service area, which covers South- and also Southern Africa. The total population was targeted; no sample was drawn. The employees were requested to complete the questionnaires and it was clearly indicated that participation is voluntary and also anonymous. The researcher forwarded the questionnaires to trained office managers in the outlying offices and to the academic managers at the head office in Durban to assist with the distribution and collection of the questionnaire. A total of 250 questionnaires were distributed, of which 247 were completed and returned, signifying an effective response rate of 98.8%. The data was captured by the Statistical Consultation Services of the North-West University and analysed with the IBM Statistical Package for Social Services Version 25 (IBM SPSS, 2018).

TABLE 1: CONSTRUCTS SUPPORTED BY THE LITERATURE

ANTECEDENT	CRITERIA	INTERVIEWEE-SELECTED CRITERIA	LITERATURE SUPPORT	LITERATURE-SUPPORTED CRITERIA
1. Sales	1. Cost of the programmes 2. Sales target achievement 3. Number of short courses sold 4. Number of students enrolled 5. Number of returning students enrolled <i>(Criterion 6: Omitted)</i>	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Belch and Belch (2015) Collins Dictionary (2017) CSO Insights (2016) Lei (2012) Kargic and Poturak (2014) Thian et al. (2016) Bezuidenhout and De Jager (2014)	1, 2 3, 4, 5 1, 2 1, 2, 3, 4, 5 1, 2, 4, 5 1, 2 1, 2, 3
2. Growth	7. Increase in market share 8. Increase in student numbers 9. Increase in new programmes 10. New regions 11. Saturation of SADC and SA markets 12. Entered into international partnerships 13. Leverage alumni network	2, 4, 5, 6 1, 2, 3, 8 2, 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 8 3, 4, 7 1, 3, 6, 7	Lamb et al. (2016) De Meyer et al. (2017) Hanover Research (2017) Thian et al. (2016) PWC (2017) Akplu (2016) Levy (2015a)	7, 8, 9 7, 9, 10 11, 12, 13 7, 8, 9, 10, 12 10, 11, 12 7, 10, 11 7, 8, 9, 10, 11, 12
3. Profitability	14. Expense control 15. Increase in revenue 16. Sustainable	2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 5, 6, 8	Longenecker et al. (2017) Kotler and Keller (2016) Bateman and Snell (2015) Sazonov et al. (2015) Jashim (2016)	16 14, 15, 16 14, 15 14, 15, 16 15
4. Technology	17. Website 18. Social media 19. Management information systems 20. On-line learning 21. CRM software	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 8	Alsemgeest et al. (2017) Longenecker et al. (2017) University of Oxford (2017) Hanover Research (2017) Navneet (2016)	17, 18, 19, 20, 21 17, 18, 20 19, 20 20, 21 19, 20
5. Customer	22. Customer value 23. Continual improvement 24. Products offered 25. The target market for distance education	2, 4, 5, 6, 7 1, 2, 3, 6, 7 1, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Alsemgeest et al. (2017) Goetsch and Davis (2016) Levy (2015b) Khalid (2014)	24 22, 23, 24 24, 25 22, 23, 24, 25

6. Innovation	26. Teaching and learning 27. Academic programmes 28. Embrace innovation 29. Online platforms	2, 4, 5, 6, 7 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 4, 5, 6, 7, 8	Alsemgeest et al. (2017) Longenecker et al. (2017) Hanover Research (2017) Navneet (2016)	26 28, 29 26, 27, 28, 29 26, 27, 28, 29
7. Service	30. Level of service 31. Meeting needs 32. Meeting wants 33. Considers the customer	1, 2, 3, 4, 5, 6, 7, 8 2, 3, 6, 7, 8 1, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Bateman and Snell (2015) Altbach (2015) Navneet (2016)	30, 31, 32, 33 31, 32, 33 30, 31, 32, 33
8. Leadership	34. Goal directed 35. Innovative 36. Passionate 37. Embraces organisational change	1, 2, 3, 4, 5, 6, 7, 8 2, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 5, 6, 7, 8	Goetsch and Davis (2016) Longenecker et al. (2017) Alsemgeest et al. (2017) Al-Husseini and Elbeltagi (2016) Yirdaw (2016)	34,35,36 34,35,36 34,35,36,37 34,35,36,37 34
9. Return on investment	38. Investment by founder 39. Profit focus 40. Monitoring expenses and revenue 41. Target driven	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Longenecker et al. (2017) Carol et al. (2017) Yan and Levy (2015) Thian et al. (2016)	38, 39, 40, 41 39, 40 38, 39, 41 38, 39, 41
10. Stakeholders	42. Government institutions' influence 43. General public 44. Quality assurance bodies 45. Professional bodies 46. Shareholders control and influence	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 3, 4, 5, 6, 7, 8 2, 3, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Longenecker et al. (2017) Levy (2015a) Van Schalkwyk and Steenkamp (2016)	42, 43, 45, 46 42, 43 43, 46 42, 43, 44, 45, 46
11. Society	47. Political changes 48. Community perceptions 49. Student population 50. The public has accepted private providers	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 3, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Alsemgeest et al. (2017) Akplu (2016)	47, 48 48, 49 47, 48, 49, 50

12. Quality	51. Meet expectations of students 52. Meet requirements of CHE 53. Fit for purpose 54. Compliance with regulations	1, 2, 4, 5, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 2, 4, 6, 7 1, 2, 3, 4, 5, 6, 7, 8	Strydom et al. (2017) Schiffman and Kanuk (2014) Stander (2017) CHE (2001; 2016) Van Schalkwyk and Steenkamp (2016) Thian et al. (2016)	51, 53, 54 51, 52, 53, 54 51, 52, 53, 54 51, 52, 53, 54 51, 53 51, 53, 54
13. Marketing	55. Branding 56. Website 57. Social media 58. Software management 59. Physical infrastructure	1, 2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 5, 8 2, 5, 6, 8 1, 2, 3, 4, 5, 6, 7, 8	Longenecker et al. (2017) Lamb et al. (2016) Hanover Research (2017)	55, 59 55, 56, 57, 59 55, 56, 57, 58, 59
14. Communication	60. Personalised 61. Updated communication 62. Timeous communication 63. Student feedback 64. Tutor feedback	2, 4, 6, 7 1, 3, 4, 5 1, 2, 3, 4, 5, 6, 7, 8 3, 4, 6, 7 4, 6, 7	Goetsch and Davis (2016) Kotler and Keller (2016) Abdallah et al. (2015) Makhitha (2017) Navneet (2016)	61, 62 60, 61, 63, 64 60, 61, 62 60, 61, 62 60, 61, 62, 63, 64
15. Legality	65. CHE compliance 66. DHET compliance 67. Financial and statutory compliance 68. Regulatory bodies' adherence	1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8 1, 2, 3, 4, 5, 6, 7, 8	Botha et al. (2016) Jashim (2016) CHE (2001; 2016)	67, 68 67, 68 65, 66, 67, 68

Ethical clearance

This is a low-risk category study. It was submitted and ethically cleared by the Ethics Committee of the Faculty of Economic and Management Sciences at the North-West University. After the committee approved the study and classified it as a low-risk study, a study-specific ethics number (EMS14/11/12-01/10) was issued.

RESULTS

Reduction of the measuring criteria

Exploratory factor analysis offers the advantage to simplify the dataset; this results in an easier understanding of the results. Simplification, according to Gaskin (2014), not only improves the validity of the analysis, but also enables better application and operationalisation of factor models in practice (Shaikh et al., 2017). In this case, varimax rotation is particularly suitable because it attempts to load criteria strongly onto specific factors, thereby reducing criteria that load onto more than one factor. This makes for easier factor interpretation (Field, 2013:1966). A varimax rotation also maximises the variance explained; this is important in exploratory studies because it offers the researcher a better understanding of the latent variables and their importance (Field, 2013:642). Furthermore, based on the success of numerous exploratory studies to simplify and purify measuring instruments from dual-loading or low-loading criteria by successfully using exploratory factor analysis (Naidoo, 2011; Fields & Bisschoff, 2013a; 2013b; Bisschoff & Moolla, 2014; Hamid, 2015; Shaikh et al., 2017), the statistical decision criteria that are used are to accept factors if the KMO is equal to or higher than 0.70, Bartlett's sphericity is smaller or equal to 0.05, and the cumulative variance explained exceeds 60%. Criteria with factors loadings of 0.40 and higher are retained provided they do not show strong dual-loading properties (second factor loading exceeds 0.30) (Pallant, 2010:192). Factors' reliability should equal or exceed Cronbach's alpha coefficient of 0.70 (Field, 2013:675).

The results show that five rounds were required to extract a satisfactory component matrix. Factors were retained as per the Kaiser criterion (where the eigenvalue exceeds or is equal to 1) (Kaiser, 1958:187; Pallant, 2010:184) and also where the eigenvalue exceeds the parallel analysis random matrix (Pallant, 2010:184) (as generated by the parallel analysis engine) (Patil et al., 2007). The results appear in Table 3. Eliminated criteria numbers correspond with Table 2.

TABLE 2: PURIFICATION OF THE MEASURING CRITERIA

ROUND	VAR. EXPL. (%)	KMO	BART- LETT	NO. OF FACTORS	ALPHA	CRITERIA ELIMINATED
1	71.57	.920	.000	15	.982	None
2	72.60	.926	.000	12	.979	7.1, 5.6, 6.2, 13.3, 2.6, 3.2, 12.1, 6.4, 11.5, 2.1, 5.4
3	71.64	.927	.000	11	.977	2.5, 2.2, 16.9, 13.2, 6.3, 16.1, 13.1
4	72.26	.925	.000	10	.975	5.2, 16.6, 10.1, 2.3, 5.3
5	70.56	.926	.000	10	.974	7.3, 11.4, 16.12

The cumulative variance explained (in Table 3) decreased marginally with 1.01% after eliminating 26 unsuitable criteria. Additionally, the original 15 factors were reduced to 10 clear factors; this is a significant simplification of the factor structure to measure the performance of a private business school. Furthermore, the other statistical requirements were easily met and remained excellent with marginal differences in the sample adequacy (KMO) and reliability (alpha coefficients). Sphericity (Bartlett tests) remained unchanged below the required 0.05 level. However, Shaikh et al. (2017) points out that the real value of purification resides with the reduction of the number of factors (from 15 to 10), thereby creating a much more measurable and manageable model to apply in practice. In this case, Hill and Hughes (2007:380) state that a marginal decline in total variance explained is “but a small price to pay for the additional validity gained by the reduction in the number of factors and measuring criteria”.

Factor analysis

The rotated component matrix showing the extracted ten factors and their factor loadings appears in Table 4. The variance explained and the reliability coefficient of each of the factors appear at the bottom of the table. The variance explained indicates that Factor 1 is the most important factor (18.2%) of the variance, followed by Factor 2 (11.4%), down to the least important Factor 10 (7.5%). The total variance explained (70.56%) shows a very good fit to the data exceeding the margin of 60% with ease (Costello & Osborne, 2005:8; Field, 2013:672).

Regarding factor reliability, the first seven factors have excellent reliability coefficients that exceed 0.90, while the last three factors exceed the required margin for this study (0.70) with ease. This means that all the factors are reliable and can be operationalised in practice.

TABLE 3: ROTATED COMPONENT MATRIX

Description	1	2	3	4	5	6	7	8	9	10
15.3 Adheres to DHET rules and regulations	.836									
15.1 Complies with CHE rules and regulations	.825									
15.4 Complies with SAQA rules and regulations	.815									
15.2 Complies with financial and legal requirements	.803									
10.4 Complies with CHE quality standards	.742									
12.3 Complies with CHE & DHET quality standards	.734									
10.2 Complies with Government regulation and policy	.692									
10.3 Follows professional body rules and regulations	.644									
12.4 Programmes are fit for purpose	.583									
10.5 Shareholders provide directional objectives	.484									
14.4 Is in constant contact with students		.813								
14.6 Communicates personally with the students		.799								
14.5 Communicates timeously with students		.786								
14.7 Social media used effectively as communication tool		.717								
14.3 Undertakes student surveys to understand students' experience		.704								
14.2 Students receive tutor or lecturer feedback		.644								
14.1 Updated communication to students is provided		.644								
7.4 Student orientation and focus are primary		.542								
7.2 Continuous improvement of processes		.484								
16.13 The costs of programmes are affordable		.452								
4.5 Students are registered via the CRM system			.785							
4.2 The LMS is effective			.780							
4.4 Uses the latest technology to communicate with students			.736							
4.3 Has an online teaching platform			.733							
4.1 MIS is effective			.704							
16.2 Human resources training and development programme exists			.487							
13.4 Uses software to track and evaluate marketing efforts			.475							
13.5 Has excellent infrastructure			.450							
9.2 Is profitable				.766						
3.4 Constantly reviewing strategies to be profitable				.696						
3.1 Revenue has increased year-on-year				.678						
9.1 Expenses and revenue controls are in place				.653						

9.3 Targets are aimed at achieving outcomes				.626						
3.3 Systems exist to control and monitor expenses				.626						
9.4 The founder provided the initial investment				.626						
8.4 The focus is on the mission and vision					.729					
8.1 Organisational change is embraced					.705					
8.3 Innovation is encouraged					.681					
8.2 Outcomes are achieved by being goal-directed					.634					
12.2 Quality student expectations are the focus					.532					
16.10 An efficient information technological (IT) system exists						.618				
16.11 Empowers the public on the importance of higher education						.607				
16.9 Staff are professional in their interaction with students and public						.586				
16.8 The organisation is accessible to students						.477				
16.7 Excellent infrastructure for higher education is in place						.429				
16.4 Promotional campaigns focus on students						.406				
1.4 The number of new students increased year-on-year							.705			
1.3 Short course offerings have increased							.694			
1.5 Students returning to study have increased year-on-year							.671			
1.2 Sales targets have been achieved							.547			
2.4 Market share in SADC has increased							.443			
1.1 Cost of the programmes								.835		
16.3 The price of programmes is affordable								.687		
5.1 Programmes offered are value for money								.672		
11.3 Political changes affect operations in the various offices outside South Africa									.760	
11.1 Perception by society is positive									.543	
11.2 Society is impacted by the organisations it serves									.435	
5.5 Programmes offered target the customers or students' needs										.531
6.1 Innovative programmes are continually developed										.527
Variance	13.30	11.66	8.77	8.18	7.60	5.37	4.65	4.93	4.05	2.40
Cum. variance	13.30	24.95	33.71	41.89	49.49	54.87	59.52	64.11	68.16	70.56
Cronbach alpha	.952	.938	.902	.899	.923	.907	.780	.773	.785	.702

Extraction method: Principal component analysis; Rotation method: Varimax with Kaiser normalisation; Rotation converged in 9 iterations.

DISCUSSION OF FACTORS

Factor 1: Regulatory compliance

The analysis identifies criteria dealing with government regulation, rules and regulations, therefore compliance, as the most important factor that a private business school should adhere to in their quest to perform well. All the criteria listed show that the myriad of rules and regulations required to register and operate as a private business school by different governing bodies are key issues to adhere to. Factor 1 is the most important factor and explains a variance of 13.30%.

Factor 2: Strategic communication

The second most important factor deals with issues pertaining to strategic communication and the role it plays in supporting a desirable student/customer experience. Strategic communication is an important tool by an institution to explain and fulfil its mission (Hallahan et al., 2007:20), while strategic communication between customer and institution also plays an important role in business performance (Roberts, 2018). This high factor rating of 11.6% of the variance demonstrates the importance of strategic communication.

Factor 3: Educational technology stack

Factor 3 identifies criteria dealing with technology as the third most important factor. Technology has an impact on business operations and performance. Technology has the ability to improve the financial position, enables faster communication (Holyoak, 2017), it also allows for innovation that keeps employees more engaged as well as increases capacity of the business to do more and ultimately saves time and money (SBDC Oklahoma, 2017). With the fourth industrial revolution, the educational technology stack having the best of breed technologies is to be looked at more closely as this is the way of the future in PHE and education in general. The factor explains 8.77% of the variance.

Factor 4: Strategic finance

Factor 4 deals with strategy and finance. Various studies indicate that strategy in organisations is critical for the current and long-term growth and sustainability, also in PHEIs (Thompson et al., 2018; Longenecker et al., 2017; Carol et al., 2017; Yan & Levy, 2015; Thian et al., 2016). In addition, these studies also highlight the importance of financial monitoring; here, both revenue and expenditure are critical factors for business success in organisations. Proper financial and strategic performance systems for regulatory compliance are essential because financial health enables PHEIs to retain their educational licences and comply with financial regulations. Strategic financial planning is therefore imperative to long-term survival and to adhere to regulatory requirements; noncompliance could have disastrous consequences for the business performance of a PHEI. The factor explains 8.18% of the variance.

Factor 5: Organisational development

Factor 5 deals with the mission and vision and embracing innovation. Organisational development focuses on fulfilling the mission and vision as well as embracing changes that take place internally and externally of the organisation. Change is constant and to embrace the change is critical for the survival of any organisation (Carnall, 2018); this is especially true in relation to the changes in compliance required by the CHE and DHET. In the case of South Africa, the PHEI environment is constantly affected by the changes in regulations and compliance requirements in addition to the typical challenges experienced by other business environments (such as the economic factors of the country) (Wride, 2017). Therefore, PHEIs have to be strategic in the manner that they approach the achievement of their goals and outcomes. The factor explains 7.60% of the variance.

Factor 6: Customer orientation

Factor 6 focuses on customer orientation. Customer orientation has a direct impact on the sales and delivery of the product or service of any organisation as well as an impact post-delivery of the service (Kasemsap, 2017:126). Customer orientation relates to service delivery, which includes areas of reliability, responsiveness and having empathy. This creates a view that the organisation is in contact with society in general and focuses on the needs of the customer (Orville, Walker & Mullins, 2014:253). Customer orientation and community involvement in PHE are critical for success in the higher education sector. Factor 6 explains 5.37% of the variance.

Factor 7: Sales

Factor 7 deals with increasing sales of programmes, both formal and short courses. Sales, as a result of marketing efforts, facilitate the flow of income into the PHEI. Resultantly, higher sales, either by geographic market expansion or market penetration, would increase income flows of PHEIs. Additionally, important to PHEIs are student retention and to lock students in for the full study time by ensuring that they complete their studies by moving from year to year in their programme. Ideally, continued or advanced training and education following a first qualification should also be actively marketed to the current student base. This factor ties in well with Factors 4 and 10, *Strategic finance* and *Customer service*, respectively. Factor 7 explains 4.65% of the variance.

Factor 8: Pricing

Factor 8 deals with the pricing of programmes being offered at an affordable price that provides value for money to students. The founding principles of being affordable and being accredited are adhered to in this factor. The pricing of service is critical to ensure that profits are achieved. In so doing, the right price has to be charged for the service delivered. Substantial growth in revenue and market share depends on the pricing model developed for the product or service (Nagle & Müller, 2017:2-4). The right price for the programmes offered in PHEI is important for the suitability and profitability of the institution. Factor 8 explains 4.93% of the variance.

Factor 9: Socio-political influence

Socio-political factors, which include society and the political or regulatory environment, are dealt with in this factor. Socio-political influence refers to both the impact and interaction of social elements and political elements on an organisation (Complexity Labs, 2018). PHEIs are affected by both the political system that is highly regulated and controlled as well as the social dimension due to the demand for higher education to meet the government objectives of increasing the entry into higher education. This business environment has an impact on the operations and their sustainability of PHEIs. Factor 9 is the second least important and explains 4.05% of the variance.

Factor 10: Market focus

Factor 10 is the last factor and focuses on being responsive to market and student needs by offering programmes that they require. In this regard, Vendrell-Herrero et al. (2017:489) highlight that organisations need to be outward looking or market focused when delivering a product or service. This ultimately leads to having a competitive presence and catering to the needs of the market. This allows for innovation and experimentation with new ideas and products. Singh et al. (2018:220-221) indicate that organisations grow through the institutional context, resource allocation as well as the industry context. This highlights that an organisation needs to consider the industry or the market when deciding on the product or service to provide, which ultimately leads to growth and delivers a viable return on investment. This factor is required in order for the PHEI to develop new programme offerings that are relevant in the marketplace. Factor 10 explains 2.40% of the variance.

Factor correlations and multiple regression analysis

Pearson correlation coefficients were used to determine the inter-factor correlations. All the factors showed high inter-factor correlations ($p \leq 0.1$; $0.70 > r > 0.35$). Although correlations between factors ($p \leq 0.1$; $r \geq 0.30$) (Pallant, 2010:185) are expected, cases where high correlations exist require further investigation. Various authors (Basilevsky, 1981; Carvalho, 2008; Field, 2013; Arayesh, 2015) suggest that multiple regression is suitable to determine whether the most important factor is influenced by the lesser important ones, and if so, to what extent. In this study, *Factor 1: Regulatory compliance to rules and regulations* is the most important factor because it explains the highest variance; Factor 1 then serves as the dependent variable with Factors 2 to 10 as the independent factors. The results appear in Table 5.

TABLE 4: MULTIPLE REGRESSION MODEL

Model	R	R square	Adjusted R square	Std. error of the estimate		
1	.794 ^a	.631	.616	.47325		
a. Predictors: (Constant), Factor10, Factor 8, Factor 7, Factor 9, Factor3, Factor 4, Factor 6, Factor2, Factor 5						
Model		Unstandardised coefficients		Standardised coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	.299	.219		1.362	.175
	Factor 4	.399	.062	.367	6.484	.000*
	Factor 5	.201	.063	.222	3.174	.002*
	Factor 6	.228	.069	.222	3.284	.001*
	Factor 9	.097	.058	.092	1.664	.097**
a. Dependent variable: Factor 1						

a. Dependent variable: Factor 1

* p≤0.05; ** p≤0.10

The table shows that the calculated variance is $R^2=.631$ (adjusted $R^2=.616$). This means that a satisfactory 63.1% of the variance in Factor 1 is explained by the four factors (Factors 4, 5, 6 and 9). These four independent variables are significant (Factors 4, 5 & 6: $p\leq0.05$; Factor 9: $p\leq0.10$) and contribute (as per standardised beta coefficients) regression weights of .367, .222, .222 and .092, respectively, to the variance of Factor 1.

The regression function then constitutes:

$$\text{Compliance to rules and regulations (Y)} = (.367 \times \text{Strategic finance}) + (.222 \times \text{Innovation and goal directed}) + (.222 \times \text{Visibility}) + (.092 \times \text{Political and societal impact})$$

In practice, this means that *Strategic finance* is the biggest predictor of compliance with rules and regulations, followed by *Innovation and goal-directed* activities, while *Political and societal impact* has the lowest predictable influence. Therefore, an improvement in *Strategic finance* will benefit and improve *Compliance with rules and regulations* more than any other predictors and should be dealt with first as this approach will yield a better return on managerial interventions aimed at improving the most important factor, namely *Compliance with rules and regulations*.

A MODEL TO MEASURE THE BUSINESS PERFORMANCE OF PHEIs

The factor analyses identified ten factors from the 18 antecedents and 68 measuring criteria as key factors to manage PHEIs' business performance. In total, some 26 criteria were omitted from the initial theoretical and qualitative model by the statistical analysis. The model has ten factors that explain a cumulative variance of 70.56%. All ten factors have excellent reliability that exceeds the minimum alpha coefficient of 0.70 with ease; six factors even have alpha coefficients that exceed 0.90. The empirical model of business performance for PHEIs is shown in Figure 1.

FIGURE 1: BUSINESS PERFORMANCE FACTORS OF PHEs

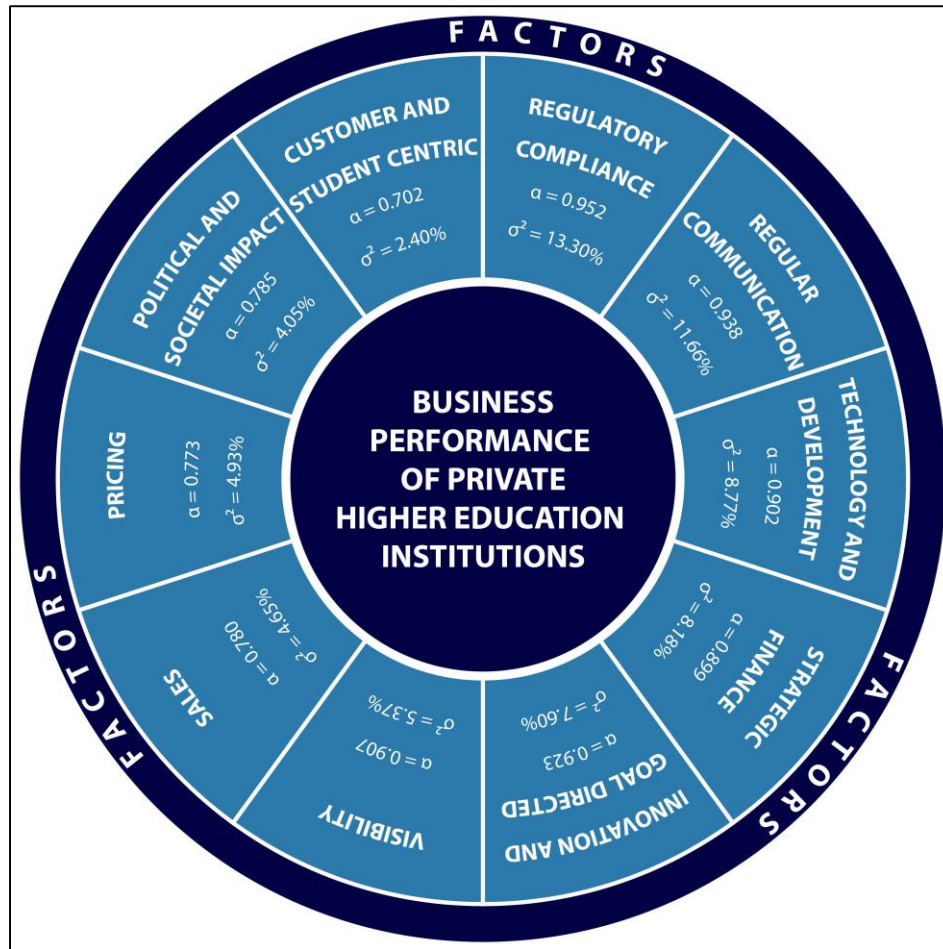


Figure 1 shows the ten factors. Noteworthy is that the factor structure does not possess any sub-factors within any of the ten identified factors. This means that each factor, in essence, is pure in nature and does represent business performance factors *per se* (Shaikh et al., 2017). The figure also shows the respective variance explained by each factor (as indicators of each factor's relative importance), their reliability and the factors as they were labelled.

The findings of the model are partially supported (and in some cases also contradicted) by other researchers. In a study by the Advanced Institute of Management Research (2006:10), three factors are directly supported by their findings. They are Factor 1 (Regulatory compliance with rules and regulations), Factor 7 (Sales) and Factor 8 (Pricing). Their study also identified the most important factor as Regulatory compliance and rules and regulations, while Sales and Pricing were both factors that the institute identified as important educational performance factors. Research by Soriano (2010:468) on management factors that affect the performance of a technology firm also renders support to the findings in this study. In this case, Soriano also identified financial management (Factor 4), sales (Factor 7), goal directedness (Factor 5), price (Factor 8), and research and development of new products and profitability (which is related to Factor 5: Innovation).

Factors identified by other studies that were not identified by this study include a well-experienced leadership team (The Advanced Institute of Management Research, 2006:10), the need for achievement and optimism, leadership of the organisation, importance of technology and to be profitable (Soriano, 2010:468). The Advanced Institute of Management Research (2006:10) also reasons that educational performance is dependent on three key interrelated factors that have a significant influence on the current and future success

of business schools in the United Kingdom. They are reputation, funding and faculty. The reputation category focuses on government reputation and compliance so as to attract research grants and rankings among business schools. Soriano (2010:468) also investigated student fees and government grants as means to assist students with tuition fees. Faculty identified recruitment and retention of experienced faculty members and leadership to guide the business school. However, it is interesting to note that these three factors and their descriptions embed and support most of the factors identified in this study.

Regarding Factor 10 (Customer and student centric) Webster, Hammond and Rothwell (2014:15) support the findings of this research by stating that factors influencing American business schools' performance include being a member of a professional accreditation board (such as the Association of MBAs or the Association to Advance Collegiate Schools of Business), students as the customers of the institution and marketing efforts to increase student numbers in the business school and to increase student retention in the business school. Webster et al. (2014:18) also support re-registration and returning students as means to increase sales and market share.

CONCLUSIONS

From the analysis, the following conclusions can be drawn.

Conclusions 1 and 2:

This article identified business performance antecedents and its respective measuring criteria. Strongly literature orientated, the study identified 16 business performance antecedents, measured in total by 68 criteria. The study scientifically reduced the 16 antecedents to a more manageable ten factors, measured by 59 criteria (thereby reducing the measuring criteria by 9).

- It is concluded that the study succeeded to significantly simplifying the model to measure business performance in business schools.
- Based on the conclusion above, it is also concluded that the simplification of the model now enables an easier operationalisation of the model in industry, thereby putting academic research to use in practice.

Conclusions 3 and 4:

The success of simplifying the model and achieving satisfactory reliability and validity can be attributed to a high sampling adequacy as measured by Kaiser-Meyer-Olkin (KMO). (This study had a KMO value of .923.). Additionally, sphericity (as measured by Bartlett) measures whether the data is suitable for factor analysis. The statistics showed that the chi-square was estimated at 319.885 at 10 degrees of freedom. Bartlett's test shows that sphericity was significant with a value well below the 0.05 significance level. The cumulative variance, as explained by the five factors, is also satisfactory at 70.56%. It is therefore concluded that to successfully develop or simplify a model:

- An adequate sample was obtained; and
- Sphericity was tested to ensure the suitability of the data to be subjected to further analysis. Without these gatekeeper statistics, the attempts to develop a model are risky. However, the statistics show that the employment of factor analysis to develop the conceptual model was a low-risk venture.

Conclusion 5:

- Regulatory compliance to rules and regulations is the most important factor. In this case, the model shows that PHEIs should focus on retaining their compliance in the private higher education sector. This constitutes a competitive advantage because the barriers to enter higher education are high and complex, keeping new entrants effectively out of the market. In addition, existing PHEIs cannot compromise to lose their licence to operate.

Conclusion 6:

- In addition to the conclusion above, leaders of private higher education institutions should also focus on regular communication, technology and development, strategic finance, innovation and goal directed, visibility, sales, pricing, political and societal impacts and to be customer- and student centric, to successfully negotiate the complex challenges to manage PHEIs. The high correlations between the

factors clearly indicated that the factors all influence one another; therefore, a positive managerial change in one factor will also positively influence the other factors. This facilitates a better return on managerial inputs because it stimulates positive synergetic forces between the factors.

SUMMARY

In this article, the latent variables or factors to business performance in business schools have been identified. In addition, in simplifying the original set of measuring criteria, the theoretical model was also subjected to reliability and validity confirmation. The data is reliable and the factors also returned satisfactory reliability coefficients. Regarding the validity, the factors can be regarded as pure factors because they do not contain sub-factors with the factor structure. As a result, the article presents a usable validated factor structure that identified the underlying factors that can be used to manage business performance of PHEIs. The factors, therefore, present a managerial tool for executives in PHEIs to employ if they want to measure the factors of their institutions and improve their business performance. The results also provide a theoretical basis for future researchers and academia of business performance in education or in related research.

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CHAPTER 5

ARTICLE 4:

MEASURING THE BUSINESS PERFORMANCE OF A PRIVATE HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA

This article was submitted to the journal *Management and Marketing*. It is a subsidy bearing journal indexed by International Bibliography of Social Science (IBSS). The article was approved by the editor and is currently in review.

Abstract. This article postulates a model to measure the business performance of a private higher education institution in South Africa. The broad theoretical framework identified fifteen antecedents and its respective measuring criteria to measure business performance. Statistical scrutiny ensured that these criteria are actual measures of the respective business performance antecedents which culminated in a theoretical model to measure business performance of a private higher education in South Africa. The fifteen business performance antecedents are *Sales, Growth, Profitability, Technology, Customer, Innovation, Service, Leadership, Return on investment, Stakeholders, Society, Quality, Marketing, Communication, Legality, and General measures of business performance*. The results showed that all the antecedents are reliable indicators of business performance (Cronbach alpha exceeds 0.70) and that the performance of a private higher education institution can be successfully measured and also to determine if the demographic variables influence the business performance antecedents. In addition, the model seeks to determine if any significant correlations exist between the business performance antecedents. The measurement of business performance is of value to business school directors, managers and investors in private higher education. Researchers and scholars who intend to explore this avenue of business performance models further could also benefit from this article.

Keywords: business performance, private higher education, measurement.

JEL Classification: M10; I25

MEASURING THE BUSINESS PERFORMANCE OF A PRIVATE HIGHER EDUCATION INSTITUTION IN SOUTH AFRICA

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INTRODUCTION

Globalisation, the fourth industrial revolution, the high demand for higher education, increasing competition and the collapse of geographic boundaries, amongst other factors, have forced both private and public institutions of higher education into a highly competitive business environment where efficiency and performance are essential for survival (AbuMezied, 2016; Xing & Marwala, 2017). Specifically, the business models of private higher education are here under scrutiny as investors expect a fair return on their money compared to other investment opportunities. In this regard, Jegede (2016) points out that the return on investment in African higher education institutions are lucrative and that, on average, investment opportunity yields an average return of 21%; this is at present one of the highest rates of return in the world in education. Measuring the performance of resources, machinery, faculty and money is, therefore, imperative to determine if a private higher institution (PHEI) performs amicably (Bashir, 2017:82-83).

Traditionally, public colleges, technical colleges (Technikons) and universities dominated higher education in South Africa. Resultantly, performance measurement revolved strongly around state requirements and activities, such as publishing research articles in subsidy earning journals, to earn additional subsidy income. However, privately owned institutions find themselves in the competitive business environment where financial performance is key. Furthermore, competition for an education also exists from the social development objectives of the government who has implemented a free higher education system from December 2017. In this system, the poor and working-class students (South African households with a combined annual income of up to R350, 000) who are currently enrolled in TVET colleges or university students, are subsidised.

This investment in higher education is expected to contribute to greater economic growth, social justice, reduce poverty, reduce inequality, enhance earnings and increase the competitiveness of the South African economy (Bekezela, 2018). Further South African government's ambition to increase student enrolments in higher education, in both public and private institutions, to 1,62 million, 950,000 in 2010 places further strain on government resources (South African Government, 2012). In 2016 there were 938,201

student enrolments in public higher education alone (SANews, 2017); 309,788 were already funded by the National Student Financial Aid Scheme (NSFAS) while the scheme expects to add more than 100,000 students in 2018 (Nxasana, 2017). In this regard, PricewaterhouseCoopers (2017) points out that South Africa needs to accommodate 1.5 million higher education students by 2030. In this regard, Badat (2016:72-74), as well as Maharaj (2016:55-66), further highlight that South African higher education has various challenges which include inadequate funding for students' fees, insufficient resources for academic development and student support, skills shortage of adequately qualified academics with doctoral qualifications as well as funding for infrastructure and creating efficiency within public higher education institutions (Havergal, 2015). This is the context within which private higher education institutions function.

However, in this context, opportunity exists. Due to the financial constraints that South Africa and many other sub-Saharan Africa countries face, public institutions and system just cannot cope with the growth in enrolments (Garwe, 2016:238), and a business opportunity for private higher education realised. This has led to the growth of the private higher education institutions who are responding to the increased demand for education in South Africa (Ilie & Rose, 2016:436). Private investors and entrepreneurs responded and entered the tertiary market for education.

Becker et al. (2017:45-46), in this regard, postulated some entrepreneurial and investor issues regarding entering into a PHEI as investment because of the difficulty to determine institutional business performance measurement. These include issues such as *What is on the five-year horizon for higher education institutions? Which trends and technology developments will drive educational change? What are the challenges that we consider as solvable or difficult to overcome, and how can one strategise effective solutions?* These questions would, according to these researchers, provide direction and focus on the business strategy and performance measures required to achieve the desired outcome. Despite these guidelines, measuring the performance of a PHEI is more complex. Here the government, quality standards, stringent regulations and legal requirements serve as examples of complexing factors to measure the performance of

PHEIs (DHET, 2018). Given this background, this study aims to identify antecedents and its respective measuring criteria to measure business performance of a PHEI in South Africa.

PROBLEM STATEMENT

The business environment of PHEIs, driven by multiple technological and social forces, is undergoing large-scale and fundamental changes. Businesses function in a complex environment and are required to react effectively and efficiently, be flexible, innovative and respond speedily to the continuous and at times unpredictable changes (Hitt, Ireland & Hoskisson, 2017:7). These businesses transform resource into products and services, aiming to do so at a profit while remaining competitive and sustainable in the long-run (Erasmus, Strydom & Rudansky-Kloppers, 2016:3). Sustainability requires business performance measurement. In this regard, Kurniawan and Christiananta (2018:11) assert that business performance needs to be measured to determine whether improvements and resources deployed have had a positive effect on the business. In practice, to measure means to set realistic objectives and determine how to actually measure them. The method to measure business performance is to determine whether the objectives of the business have been achieved. However, in practice, the measurement of business performance is complex and may have various factors to consider. Also, measurement models differ according to type of business and the business environments they operate in. Although many models do exist to measure a higher education institution, most do so for public institutions; their performance criteria differ from that of PHEIs. Research specifically on performance measurement of PHEIs in South Africa are limited. In this fast-changing education- and competitive environment, this article then aims to address this specific problem of measuring business performance of a private higher education institution in South Africa.

RESEARCH OBJECTIVES

The primary objective of this article is to measure the business performance of private business school in South Africa.

This primary objective is achieved by addressing the following secondary objectives:

1. Theoretically study business performance antecedents;
2. Statistically validate the respective theoretical measuring criteria pertaining to the business performance antecedents;
3. Compile a demographic profile of the respondents;
4. Measure the business performance antecedents; and to
5. Identify significant correlations that may exist between the antecedents.

BUSINESS PERFORMANCE

Business performance or business success?

It is important to determine if the organisation is successful or not. This is done by measuring the level of performance of an organisation. The process of measuring generates comparative information which assist the organisation to determine if it improved or not on the list of comprehensive activities that are measured in the organisation (Kaur, Kumar & Kumar, 2017:127). However, Coetzee (2017) strongly warns against the term “success” because of its relativity properties. He mentions that the perceived success differs from person to person. He, for example, states that success could be, for one person, to complete a marathon, while for another it translates into winning the marathon. If the term “performance” is used, definite measurement criteria are applied to quantify performance. In this case, the specific completion time of the marathon for both persons can now be objectively documented and compared. Performance thus includes an objective criterion such as time to complete the marathon. The same analogy is true when business performance is at stake. It is vital to actually measure performance according to specific criteria to be able to render a verdict on the performance of an organisation (Kaur & Sharma, 2014:20). Also, key is to determine the measuring criteria accurately and ensure the applicability of the criteria on the specific type of organisation. (This is a key focus of this study where specific measuring criteria need to be developed to measure performance of the PHEI.)

Defining business performance

Many researchers and business analysts have tried to define business performance. Most

definitions include institutional objectives and also criteria to measure business performance as a construct. Some also include the intelligence generated by the business performance measurement process. The concept also seems to have been well researched as the core of definitions changed little over the past decade. Some business performance definitions are:

The capability to measure the level of performance of any organization.

Olusola (2011)

Business performance measures are a set of quantifiable metrics taken from various sources that together with an appropriate analytical process, allows the management of a business to track and assess the current status of a specific business, project or process.

Baskerville (2015)

Businesses measure what they manage and business performance aims to achieve this. This is a complex activity and requires focus and clear objectives and goals to be measured.

Van Looy and Shafagatova (2016)

Business performance management entails reviewing the overall business performance and determining how the business can better reach its goals.

Business directory (2017)

Business performance, after consideration of the above and also other definitions, imply specific formulated outcomes, a component of measurement of these outcomes that an organisation achieves during a specific period, and the application of the intelligence generated from the measurement. Therefore, to measure business performance, it is necessary to establish whether the outcomes desired have been met. In practice, this means that the desired outcomes need to be identified clearly, and then to develop

efficient measuring criteria (other than mere accounting norms) to effectively measure how well (or not) the organisation achieved these outcomes.

Measuring business performance

Measuring the business performance requires a multidimensional approach because businesses are impacted by various factors. These could be micro, market or macro environmental factors (Kurniawan & Christiananta, 2018:9-11). Venusita and Dyani (2018:4) further state that modern business performance is strongly influenced by the external business environment where factors such as globalisation, disruptive technological changes, the free flow of goods, services and information and instant communication abilities are prevalent; these are all aspects that influences the organisation to reach its desired outcomes. Business performance measurement also incorporates financial objectives such as value creation for the shareholders or stakeholders of the business. In this regard, Primadonna and Emrizal (2018:1121) state that modern business's performance cannot be measured only from a financial perspective. Financial information is a basis for only one of many performance outcomes a modern business should achieve. Back in 2002, Hussain and Hoque (2002:167) strongly argued the consideration of non-financial performance measurements that could improve business performance. Today many business analysts and researchers (Butler, 2017; VisionEdge, 2018; Kaplan Knowledge Bank, 2018; Hecht, 2018; Yulliansyah and Razimi, 2015:137, and others) support Hussain and Hoque by stating that performance measures such as reputation, innovation, customer value, competitiveness, the balanced scorecard and customer indices are key performance measurement antecedents. In addition, these analysts also add that constant communication and enabling technology abilities, specifically in the education business environment (Learning Portal, 2018), play an important role in the performance of these institutions by maintaining customer loyalty, forming relationships with customers and to develop trust with your customers as part of the business performance measurement exercise.

Measuring business performance is central in any organisation regardless whether the

organisation is a public enterprise or if it is privately owned. All organisations are challenged to operate productively and to achieve its planned outcomes as effectively and efficiently as possible (Van Looy & Shafagatova, 2016:2). In this quest, using an appropriate business performance model that contains the appropriate performance indicators, is vital to measure the business performance of the organisation against the planned outcomes. Noteworthy is that both the planned outcomes and business performance measurement model should be aligned to an organisation-specific developed business strategy (Silvestro, 2014:276; Sandeep & Bedi, 2016:603). This strategy and the expected outcomes should be efficiently communicated to throughout the organisation so that all the personnel in the organisation know what the performance expectations are, how it will be monitored, what feedback is needed, when feedback is expected and also so that managers can motivate employees to achieve these desired results (Teeratansirikool et al., 2013:180; Sandeep & Bedi, 2016:607). Measuring business performance is not an end by itself but rather a mechanism or tool for review of strategy and effective use of the resources of the organisation to guide management towards achieving higher performance levels (Sandeep & Bedi, 2016:605).

Business performance measures and strategic management planning

Business performance is an integral part of the strategic plan while business performance measures are dependent on the organisation's capability to meet the planned outcomes. These outcomes are industry-specific and also differs between organisations within the same industry. Same-industry differences exist because of possible different business models, competitive forces, market focus, ownership structure, ownership expectations, the current business life-cycle stage and other differences between organisations (Geldenhuis, 2018). Therefore, business performance indicators vary across various dimensions to fit the needs of the specific industry and also the specific organisation. This includes the financial indicators, the non-financial performance indicators and the influence of social capital on business performance (Primadona & Emrizal, 2018:122); all three these performance indicators should be considered when designing organisational business performance measures. Strategic planning mobilises the capabilities of the organisation to reach the desired outcomes. Satisfactory business performance should

be one of the strategic thrusts, and measuring business performance should be integrated into the strategic plan of the organisation (David & David, 2017:33).

Ultimately, in a private organisation, financial performance trumps other measures when it comes to shareholder wealth and future investments. This is because shareholders invest capital and resources that are required for production and delivery of the products or services offered to the market so that the organisation can meet the desired outcomes by making a profit (Hill et al., 2017:4-5). However, it is important to note that although a business has to be profitable to survive in the long-run, profitability can also be improved by other nonfinancial measurement antecedents (Butler, 2017; VisionEdge, 2018). It is also important to note that each business model and its planned business strategy is unique. Therefore, developing business performance measures should adapt to incorporate the uniqueness of the specific business and the industry (Geldenhuis, 2018). There cannot be a one size fits all approach when determining business performance measures for any business today (Hill et al., 2017:8).

Advantages of measuring business performance

The fast-changing business environment and globalisation require fast reaction and adaptation of business strategies. Traditional 5-year strategic plans have been redesigned into typically 3-year rolling plans and annual scenario planning (Venter, 2017). In this regard, businesses attempt to understand the factors affecting performance, to measure the performance of these factors, take the necessary action to improve them so that they can improve their performance (Gomes & Romão, 2014). In this case they improve their competitiveness and react to the changes in the business environmental forces before their competition can (Ogunsiji & Ladanu, 2017:77). This leads to the competitive advantage of rapid changes in business strategy. Other advantages of performance measurement are:

- Dynamic financial measures, rather than annual financial statements that reflect historically on the past accounting period, can be used by management to adjust their strategic focus (Hill et al., 2017:7).
- Enhanced predictions about the long-term financial performance (Aker,

2017).

- Performance standards are communicated and well-known throughout the organisation (Charboneau, 2017)
- Linking strategic planning to execution by acting on dynamic performance measurement information (Schiff, 2005).
- Achievement of the long-term organisational goals (Aker, 2017)
- Higher profitability as a result of using non-financial metrics that influence the performance of the organisation (Singh, Darwish & Potočník, 2016:214).
- The organisation is able to determine how well it performs overall (not only financially) (Singh et al., 2016:217).
- Acting on real-time data and making better managerial decisions (Schiff, 2005)
- Rapid changes in business strategies (Venter, 2017; Ogunsiji & Ladanu, 2017:75-77).
- Higher levels of customer loyalty (Aker, 2017)
- Developing agility and adaptability within organisational structures to adapt to changing global trends, yet focused on meeting the objectives of the organisation (Hitt et al., 2017:404).
- Cost saving and increased profits (Schiff, 2005).

Aker (2017) however warns that although the advantages of business performance measurement far exceeds the disadvantages, there are also some disadvantages. They are:

- Short-term results orientation may result because short-term performance (to meet the performance measurement requirement) becomes more valuable than the factors that cause them.
- Employees may become too focussed on the business outcomes, lose sight of their customers' needs and allow service or satisfaction to decline.

- Standardisation may result as employees start to modify their work habits to align with the performance measure applied. This could lead to a decline in employee creativity.
- A loss of innovation because in adhering to the applied performance measure, employees could be discouraged to experiment with innovative solutions that might produce a better result.

RESEARCH METHODOLOGY

This study employed a literature and empirical review. The literature study encompasses the topic business performance and how to measure it. Business performance antecedents and their respective measuring criteria that are important to PHEIs (as identified by Asvat, Bisschoff & Botha, 2018) were used to collect the data. The methodology to validate and modelize the antecedents and its criteria were recently used by Shaikh, Bisschoff and Botha (2017:138). These authors based their methodology on the success of various previous studies (Naidoo, 2012; Imandin, 2015; Bester and Bisschoff, 2016 and others) that also validated and modeled antecedents and measuring criteria to measure a variety of managerial dependent variables such as brand loyalty, stress management, employee retention and management skills. Using this methodology, Imandin, Bisschoff and Botha (2016:100) formalised eight steps to construct a model to measure employee engagement successfully. This study adopted and followed these steps as guideline to develop the model to measure business performance of PHEIs. This model is then operationalised and applied to measure the business performance of a PHEI. A total of 24 antecedents and their respective measuring criteria were identified from the literature.

Qualitative refinement of the antecedents

The literature-based list of 24 drafted antecedents and their measuring criteria were then further scrutinised using semi-structured interviews with eight experienced executive managers of a PHEI. The list of antecedents, as well as the measuring criteria relevant to each antecedent, was discussed with each of them to determine the importance and relevance of the antecedents and its criteria. Interviewees were also invited to add

antecedents or criteria they deem crucial in managing a PHEI. After the interviews, the initial list was amended and expanded to incorporate the interviewees' suggestions.

The interviewee profiles are:

- **Interviewee 1:** is a 60-year-old Director of marketing with ten years' experience in PHEI and holds a B. Degree in marketing.
- **Interviewee 2:** is a 47-year-old senior manager with a PhD and 15 years' experience in PHEI.
- **Interviewee 3:** is a 73-year-old Director with over 40 years of public and private higher education experience and holds a professorship.
- **Interviewee 4:** is a 65-year-old professor with over 30 years' experience in government, public education and private higher education.
- **Interviewee 5:** is a 42-year-old Director with a professional accounting qualification and ten years' experience in PHEI.
- **Interviewee 6:** is a 40-year-old senior manager with 15 years' experience in PHEI with a professorship.
- **Interviewee 7:** is a 50-year-old Director with 20 years' experience in private higher education and holds a professorship.
- **Interviewee 8:** is a 40-year-old senior manager with 15 years' experience in PHEI with a Masters qualification.

All the interviews were recorded and transcribed to ensure no information loss occurred. After the interviews, the initial list was amended and expanded to incorporate suggestions and also consider omitting criteria the interviewees did not deem important in managing a private higher institution.

The next step was to refine further and reduce the number of antecedents and identify only those key antecedents relevant to PHEIs. Here a group session with the same eight interviewees was conducted using the meta-technique (as adapted and applied from Coetsee, 2002:142-147) to capture their collective views and to identify the final list of key

antecedents relevant to the performance of PHEIs. The initial list of 24 antecedents was reduced to 15; they are measured by 68 criteria.

Quantitative data collection

The questionnaire contained two sections: Section A: Demographics and Section B: Measuring criteria. Section A consists of five questions to compile the demographic profile of the respondents. Section B consists of the final 15 antecedents dealing with business performance constructs, each with its unique measuring criteria. The criteria were formulated in statement format to which the respondents had to indicate their level of agreement or disagreement on a five-point Likert scale. In total, Section B consisted of 68 measuring criteria.

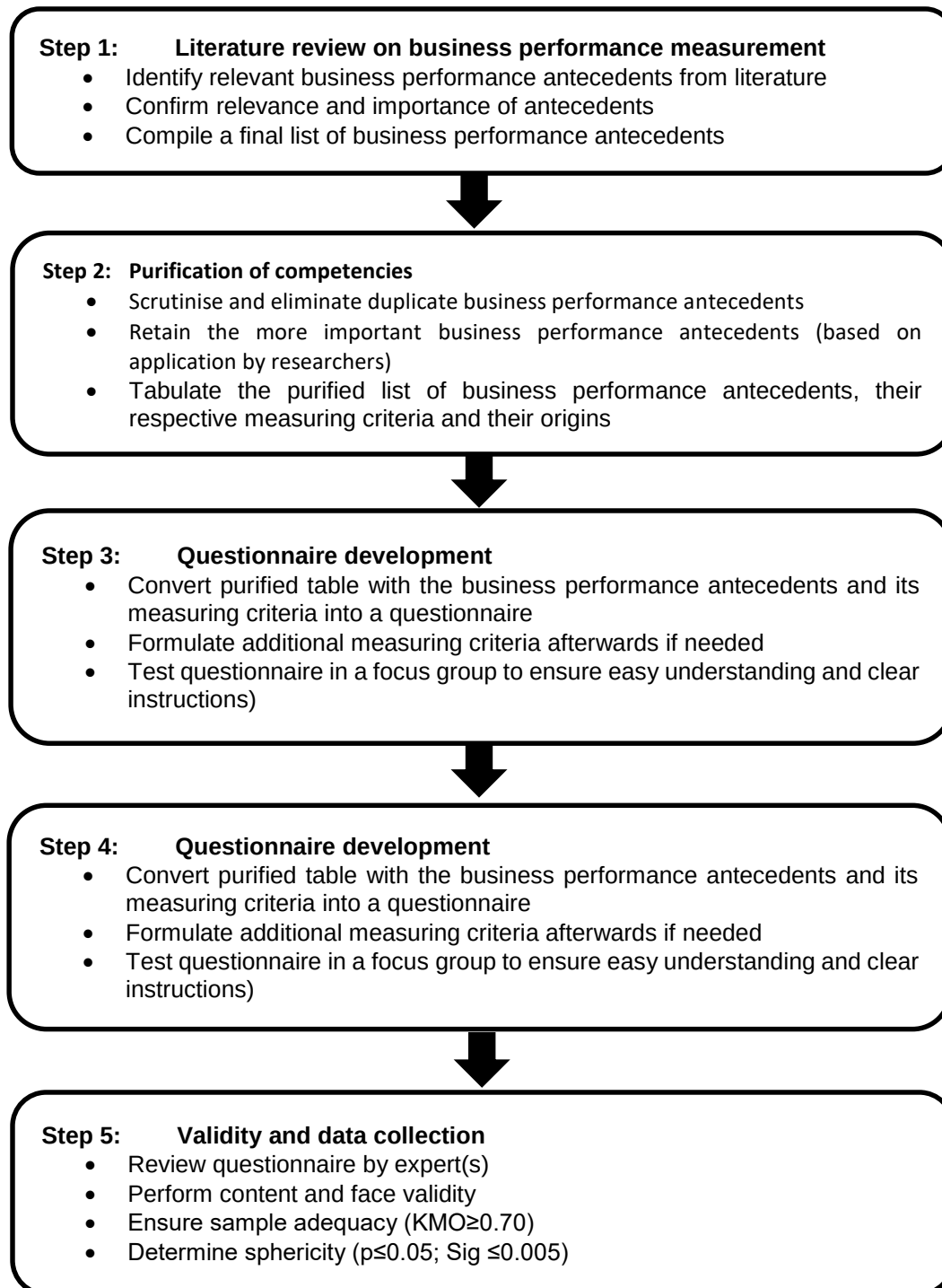
The population consisted of all full-time employees at two private business schools. These schools have a wide geographic service area which covers South-Africa and also Southern Africa. The total population was targeted; no sample was drawn. The employees were requested to complete the questionnaires. It was clearly communicated that participation is voluntary and also anonymous. The researcher forwarded the questionnaires to trained office managers in the outlying offices and to the academic managers at the head office in Durban to assist with the distribution and collection of the questionnaire. A total of 250 questionnaires were distributed of which 247 were completed and returned, signifying an effective response rate of 98.8%. The data was captured by the Statistical Consultation Services of the North-West University and analysed with the IBM Social Package for Social Services Version 25 (IBM SPSS, 2018).

Ethical clearance

The study was classified as an ethically low-risk category study and ethically cleared by the Ethics Committee of the Faculty of Economic and Management Sciences at the North-West University who issued the formal ethical number (No. EMS14/11/12-01/10).

Methodology to development of the model

The methodology to use the eight steps to modelize the antecedents and measuring criteria for operational use appears in Figure 1.



(Step 6 continues on the next page)

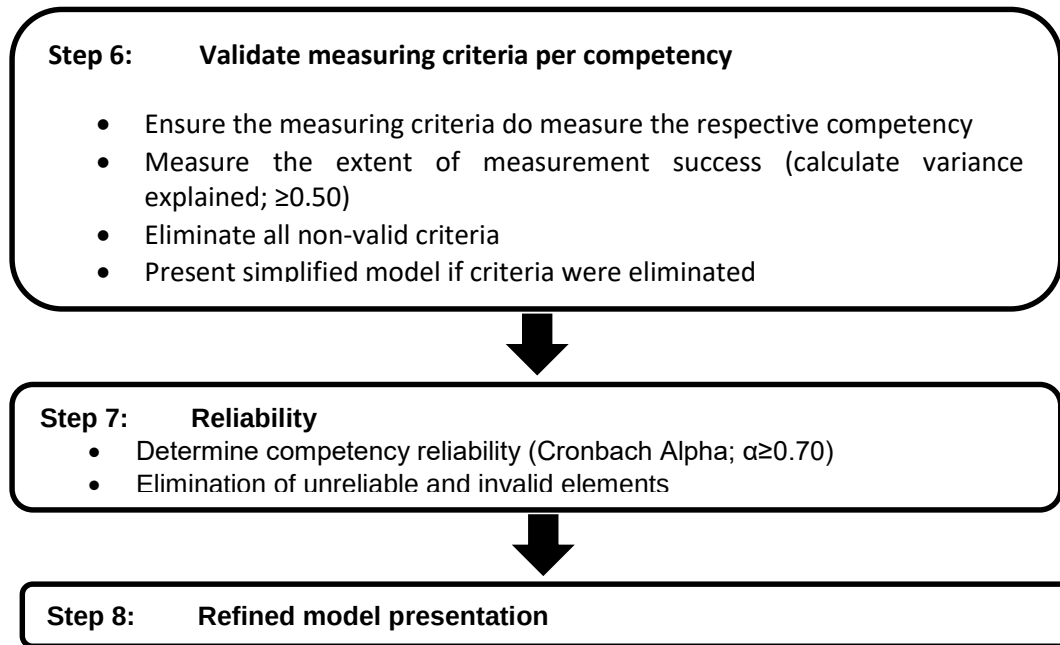


Figure 1: Methodology to modelize antecedents and its measuring criteria

As explained above, this study also made use of qualitative data collection; this was done in Step 5 when interviews were conducted with eight managers and directors of a PHEI regarding the relevance of the identified antecedents and their measuring criteria.

RESULTS

In the first two steps, a total of 24 antecedents were identified from the literature. (These antecedents were later reduced to 15 by the qualitative insights obtained from the interviews). Some 68 relevant measuring criteria about each antecedent were also identified from the literature. In Step 3 the questionnaire realised to collect the data using a 5-point Likert scale.

Steps 4, 5, 6 and 7 require statistical confirmation from the empirical study. In these steps the measuring criteria of the antecedents, the adequacy of the sample, variance explained and reliability is calculated. The measuring criteria of each antecedent is subjected to exploratory factor analysis to determine if the antecedent is indeed measured by these criteria. Ideally, all the criteria should load onto the antecedent; this signifies

validity and also that the antecedent is a pure construct and does not have embedded sub-constructs. This means that the relevant criteria measure one construct only (Field, 2009). Numerous researchers such as Bisschoff and Moolla (2014), Fields and Bisschoff (2013a, 2013b), Shaikh (2017), and others successfully validated their model antecedents likewise. Where two factors are extracted, it means that the antecedent actually consists of two sub-antecedents and as such the antecedent is measuring not one, but two or more business performance constructs. Bisschoff and Moolla (2014) found one such case where the antecedent “value for money” was actually a dual measure of the two antecedents that are “quality” and “price”. A poor loading criterion with a factor loading ≤ 0.40 also indicates its lesser importance in the measuring of the antecedent. Hence a low loadings criterion should be omitted from further analysis. The sample adequacy, sphericity and reliability are shown in Table 1. Table 2 shows the results obtained from the exploratory factor analysis per antecedent. The criteria and its factor loadings are also shown in Table 2.

Table 1: Business performance antecedents' suitability statistics

Competency	Sample adequacy	Sphericity	Reliability	Variance explained
Sales	0.748	0.00	0.770	53.26%
Growth	0.819	0.00	0.841	57.08%
Profitability	0.790	0.00	0.886	74.67%
Technology	0.811	0.00	0.890	69.57%
Customer	0.800	0.00	0.852	58.20%
Innovation	0.830	0.00	0.912	80.01%
Service	0.830	0.00	0.907	78.18%
Leadership	0.850	0.00	0.922	81.09%
Return on investment	0.807	0.00	0.867	71.79%
Stakeholders	0.855	0.00	0.878	67.58%
Society	0.817	0.00	0.869	66.78%
Quality	0.791	0.00	0.897	76.80%
Marketing	0.874	0.00	0.893	70.32%
Communication	0.913	0.00	0.933	71.55%
Legality	0.876	0.00	0.967	91.03%
General measures	0.903	0.00	0.927	56.67%

All the antecedents returned satisfactory results. All 15 antecedents have very good sample adequacies (the KMO value exceeds 0.70), possess high reliability Cronbach Alpha coefficients ($\alpha \geq 0.70$) and also explains variances that exceeds the minimum requirement of 50% (Field, 2009) (the majority explains much higher variances; the

antecedent “Legality” explains an exceptionally high variance of 91%). These satisfactory results indicate the antecedents are valid and indeed do measure what they are supposed to measure. Furthermore, the high factor loading (see Table 2) resulted in no simplification or reduction of measuring criteria. It is, therefore, concluded that the theoretical model is statistically valid and that all the criteria do actually measure the respective antecedents identified from the literature study. In practice, this means that the model is suitable to measure the business performance of PHEIs. Furthermore, it means that the antecedents and their respective measuring criteria are deemed fit to perform this measurement (Shaikh, 2017).

Table 2: Factor analysis on individual business performance antecedents

Sales	Factor loadings	Growth	Factor loadings	Profitability	Factor loadings	General measures	Factor loading
b14	.814	b23	.820	b32	.894	b1610	.842
b12	.778	b24	.816	b33	.886	b167	.799
b15	.747	b21	.761	b34	.841	b1612	.798
b13	.683	b22	.752	b31	.834	b1611	.795
b11	.608	b25	.739			b164	.781
		b26	.629			b169	.778
Technology	Factor loadings	Customer	Factor loadings	Innovation	Factor loadings	b168	.769
b45	.860	b52	.803	b62	.930	b166	.728
b43	.847	b54	.788	b63	.929	b1613	.726
b44	.842	b55	.788	b61	.898	b162	.702
b42	.814	b53	.785	b64	.816	b161	.688
b41	.807	b56	.716			b163	.596
		b51	.690				
Service	Factor loadings	Leadership	Factor loadings	Return on investment	Factor loadings		
b72	.894	b83	.914	b93	.891		
b73	.890	b81	.914	b92	.880		
b71	.886	b84	.890	b91	.837		
b74	.867	b82	.884	b94	.776		
Stakeholders	Factor loadings	Society	Factor loadings	Quality	Factor loading		
b103	.886	b112	.863	b123	.882		
b102	.884	b111	.860	b125	.880		
b104	.878	b114	.841	b122	.877		
b105	.775	b115	.840	b121	.867		
b101	.664	b113	.665				
Marketing	Factor loading	Communication	Factor loading	Legality	Factor loading		
b132	.883	b145	.880	b153	.968		
b133	.859	b147	.869	b151	.959		
b134	.852	b146	.865	b154	.957		
b131	.798	b144	.860	b152	.932		
b135	.797	b141	.832	b153	.968		

The final step is to present the model to measure business performance of PHEIs. The model is shown in Figure 2. The antecedents, the variance explained by each antecedent and the reliability of the antecedents are also shown in the model.

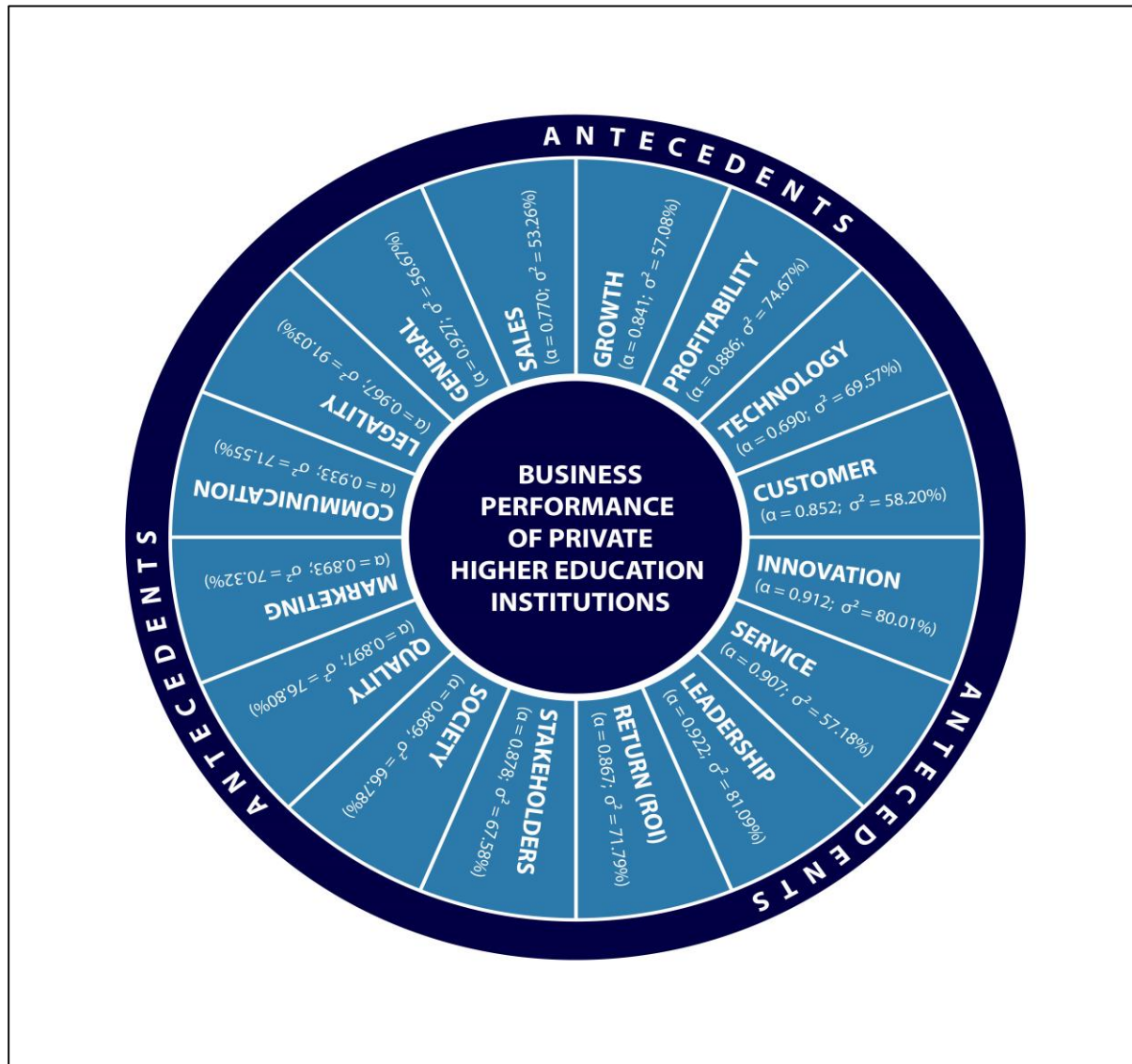


Figure 2: A model to measure management and leadership competencies

Demographic profile of respondents

The demographic profile of the respondents is shown in Table 3 below.

Table 3: Demographic profile

Demographic variable		Percentage
Gender	Male	38.5%
	Female	61.5%
Age	Less than 20 years	1.6%
	20-29 years	43.7%
	30-39 years	31.2%
	40-49 years	17.4%
	50-59 years	4.5%
	60 years and older	1.6%

Measuring the business performance antecedents

A structured 5-point Likert scale questionnaire was designed to measure the factors for business performance measurement in private higher education in Southern Africa. The scale used to measure the factors was from 1 (which indicates a response of “Totally disagree” category) to 5 (which indicates a response in the “Totally agree” category).

The single-group design was used as there was only one group (Jackson, 2016:195). Inferential statistics was used to draw conclusions from the data collected and making inferences on the population (Jackson, 2016:196). Using inferential statistical analysis, the mean values and standard deviations that were calculated support or agree or not to the importance of the required managerial and leadership competencies and their respective measuring criteria. The mean values were interpreted by using two indicators. The initial indicator or mid-point highlighted that the business performance antecedent is important when the (scoring is higher than the midpoint), or if it is not (then scoring below the midpoint). The method of interpretation was developed by Fullerton (1993) and used internationally in various management studies (see Fullerton and Bisschoff, 2013; Craven, 2010; Fullerton, Bisschoff & Neale, 2017). The mid-point for unequal scales (such as the 5-point scale used in this study) is calculated by the formula $(n+1/2) = 3$; hence criteria with mid-point values above three are regarded to be important while those below three reflect the not-so-important criteria.

The secondary indicator was the mean value which was interpreted as providing more information on the required business performance antecedent by indicating a relative measure of importance or unimportance of a criterion or antecedent. Numerous managerial studies (for example Addai et al., 2017, Tnay et al., 2013; Bashir, 2017; Danis, Chiaburu & Lyles, 2010) have applied the guidelines to explain the mean scores using the guidelines originally applied by Bisschoff and Hough (1995:174) where:

- Scores of 1.5 and lower indicates that the business performance antecedent is not very important;
- Scores above 1.5 but below 3.5 indicate an important business performance antecedent;
- Scores of 3.5 and higher indicate a very important business performance antecedent; and
- Standard deviations more than one indicate that the respondents do differ from one another, while deviations higher than 1.5 shows that they differ a lot from one another on the importance of the antecedent.

The final indicator is the deviation between the responses of the participants. In this case, the standard deviation was used; deviations exceeding one are regarded noteworthy on the 5-point scale used (Field, 2009:38). The results and scores of the respective antecedents and their measuring criteria are shown in the table below.

Table 4: Means values and standard deviations of business performance antecedents

CODE	ANTECEDENT	N	Mean	SDev
Sales		247	3.7992	0.93663
B11	Programmes that are affordable	247	3.7328	1.04447
B12	Achieve sales targets	243	3.6626	.89611
B13	Increased the number of short courses on offer	240	3.6250	.99843
B14	Increased the number of new students year on year	242	4.1364	.87969
B15	Increased the number of returning students year on year	243	3.8395	.86421
Growth		245	3.8462	0.90735
B12	Branding and marketing campaigns lead to growth	245	3.8490	1.01910
B22	Increased the number of programmes year after year	243	3.9012	.83723
B23	Increased its market share in SA	241	3.7967	.83924
B24	Increased its market share in SADC	239	3.7155	.84678
B25	National and international partnerships	241	4.1660	.84499
B26	Leverages alumni network	242	3.6488	1.05678
Profitability		240	3.9478	0.8616
B31	Increased revenue year on year	239	3.9205	.87805
B32	Financially sustainable	238	4.0252	.82638
B33	Systems in place to control and monitor expenses	239	3.8536	.87417
B34	Constantly reviewing strategies to be profitable	240	3.9917	.86780
Technology		247	3.2772	1.11977
B41	Equipped with an effective MIS	247	3.3806	1.13020
B42	Equipped with an effective LMS	239	3.2092	1.08376
B43	Equipped with an online platform	245	3.4939	1.10000
B44	Latest technology to communicate with students	246	3.2398	1.16207
B45	CRM technology to attract students	239	3.0628	1.12283
Customer		246	3.9699	0.84518
B51	Value for money programmes	245	3.8612	.88076
B52	Continually improving student and customer satisfaction	246	3.7317	.91315
B53	Attracts students who want to study via distance education	242	4.2107	.78432
B54	Attracts students who want to study via the blended mode of delivery (contact and distance)	243	4.0535	.83889
B55	Offers programmes which target the customers or students' needs	246	4.1016	.77317
B56	Provides good customer service to students	245	3.8612	.88076
Innovation		246	3.5899	0.98435
B61	Continually develops innovative programmes for students	246	3.6057	.92307
B62	Is innovative in its teaching and learning approach	246	3.6382	.92317
B63	Embraces innovation	243	3.6502	1.00673
B64	Uses an online platform to supplement delivery of programmes	245	3.4653	1.08446
Service		247	3.7518	0.90747
B71	Provides very good service levels	247	3.6478	.94644
B72	Is continuously improving	246	3.7886	.90578
B73	Meets the needs and wants of students	247	3.6761	.90637
B74	Is orientated towards the students	247	3.8947	.87713

Leadership		242	3.7000	1.00041
B81	Embraces organisational change	242	3.5041	1.04761
B82	Is goal-directed in achieving outcomes	242	3.7934	.93717
B83	Allow for innovation	241	3.6307	1.01680
B84	Is passionate about their mission and vision	242	3.8719	1.00006
Return on Investment		236	4.0318	0.85843
B91	Monitors expenses and revenue	233	3.9828	.90955
B92	Is profitable	234	4.0684	.82062
B93	Is target driven to achieve outcomes	236	4.0890	.83826
B94	Began with an investment from the founder	232	3.9871	.86530
Stakeholders		237	3.9559	0.75731
B101	Is influenced by societal changes	236	3.6398	.87126
B102	Complies with government regulations and policies	237	3.9958	1.00211
B103	Complies with professional body rules and regulations	236	4.0085	.98063
B104	Complies with CHE quality standards	236	4.1568	.93445
B105	Obtains direction from the shareholders	232	3.9784	.93256
Society		241	3.8479	0.87420
B111	Is positively perceived in the community	240	3.8708	.80009
B112	Has an impact on the society it serves	241	3.8216	.85471
B113	Is influenced by political changes in the countries it operates in	241	3.5187	.97075
B114	Creates the next generation of African leaders and professionals	240	3.9125	.92198
B115	Is accepted by society as a private higher education provider	241	4.1162	.82348
Quality		241	3.9308	0.90278
B121	Has a dedicated quality assurance directorate	240	3.8542	.97220
B122	Ensures that students quality expectations are met	241	3.7718	.87189
B123	Complies with CHE and DHET quality assurance standards	241	4.1037	.87656
B124	Provides programmes that are fit for purpose	241	4.0705	.82108
B125	Has a dedicated quality assurance directorate	240	3.8542	.97220
Marketing		241	3.8190	0.98642
B131	Uses social media	238	3.9328	.95671
B132	Has an effective website to market the institution	241	3.9087	.99998
B133	Has developed a strong brand in the market	239	3.8996	.91576
B134	Software to track and evaluate marketing efforts	240	3.5333	1.04247
B135	Has excellent infrastructure	240	3.8208	1.01721
Communication		240	3.6892	0.94296
B141	Provides updated communication to students	240	3.6583	.92836
B142	Provides tutor or lecturer feedback to students	239	3.7113	.95063
B143	Conducts surveys to understand the experience of the students	239	3.7406	.99138
B144	Is in constant contact with students	234	3.7308	.94036
B145	Communicates timely with students	239	3.6318	.94735
B146	Communicates personally with the student	239	3.7364	.90840
B147	Uses social media effectively as communication tool	239	3.6151	.97573
Legality		241	4.157	0.87652
B151	Complies with all rules and regulations of the CHE	241	4.1494	.88653
B152	Complies with financial and legal requirements	240	4.1167	.85992
B153	Complies with all rules and regulations of DHET	241	4.1494	.87707
B154	Complies with all rules and regulations of SAQA	240	4.2125	.88257

General measures of Business Performance		243	3.7060	0.95064
B161	Has an efficient Information Technology (IT) system	243	3.3292	1.10533
B162	Has a human resource training and development programme	242	3.2025	1.19660
B163	Has an affordable price	237	3.5781	.89681
B164	Engages in the promotional campaigns	240	3.7458	.87143
B166	Strongly believes that the regulatory framework should be flexible	238	3.6555	.88052
B167	Has excellent infrastructure for higher education	240	3.8583	.91291
B168	Is accessible to students	240	4.0417	.83236
B169	Have staff who are professional in their interaction	241	3.9004	.98660
B1610	Is perceived by students as trustworthy	240	3.8875	.91011
B1611	Empowers the public on the importance of higher education	238	3.9244	.86331
B1612	Communicates effectively	240	3.7083	.95852
B1613	Processes student documentation efficiently	242	3.6405	.99318

All the antecedents and their respective measuring criteria show high levels of importance by exceeding the mid-point of three. In practice, this means that all the selected criteria are deemed to be important in measuring the performance of a private higher education institution.

Reference to the secondary measure (scoring a mean of higher or equal to 3 or even 3.5) shows that the majority of the antecedents and their measuring criteria are deemed as very important to measure business performance of private higher education institutions. Noteworthy is that mean values of the antecedent *Legality* return values of four and higher; this indicates that this antecedent is a very important consideration for business success and that the regulator and compliance to government requirements is of primary importance. *Return on investment* also scored above four which highlights the importance of finance and the well-being of the shareholders as an antecedent. In practice, this shows that investors require sound returns on their investments and that this requirement is no different for the private higher education businesses. *Leadership* also scores high and further indicates that the respondents are not in agreement on this antecedent. *Technology* is the least important antecedent, albeit it still exceeds the mid-point; it scored the lowest at 3.2. This indicates that the respondents do not regard technology as such an important compared to the other antecedents. High standard deviations in *Technology* as an antecedent, however, indicate that all the respondents are not in agreement on the importance of this antecedent.

Overall the mean scores are high and indicates high level of importance and most of the standard deviations are below one indicating that respondents do not differ much from one another. In summary, the mean values of each of the competencies are shown in Figure 3 below.

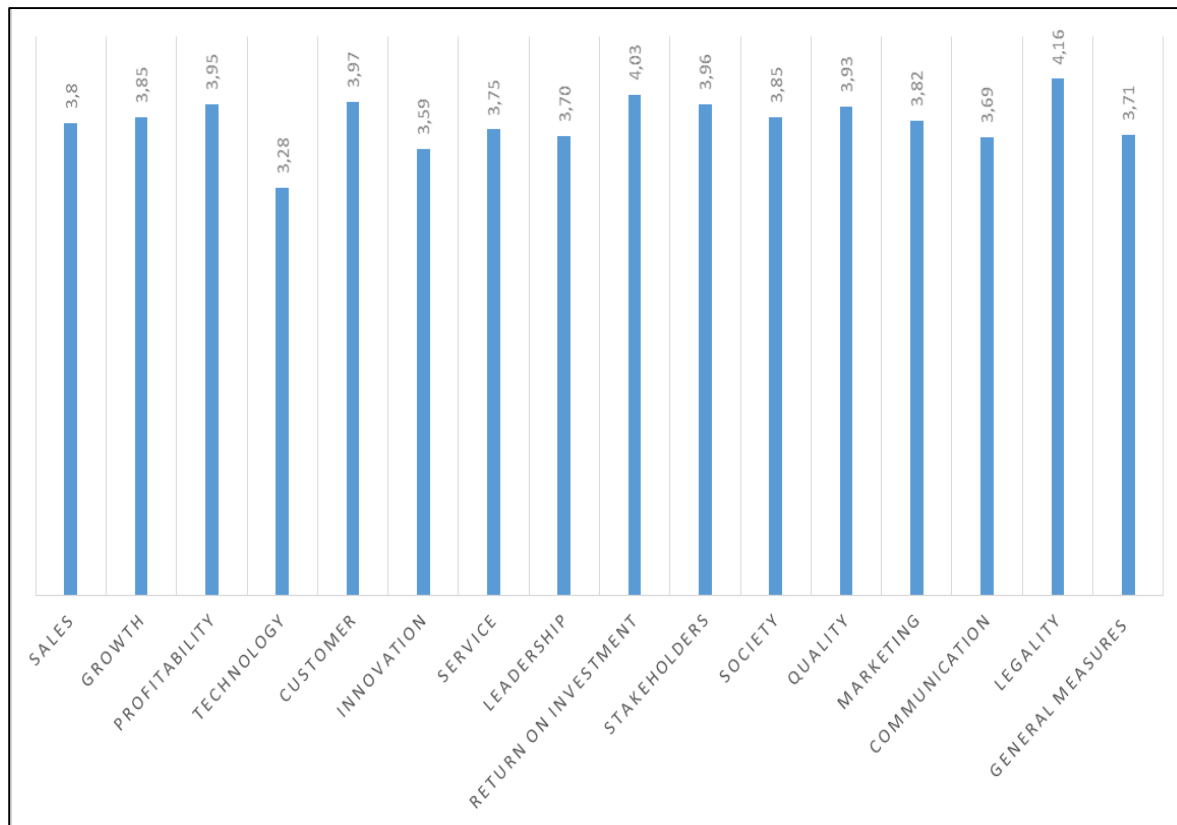


Figure 2: Mean values of antecedents

CONCLUSIONS

This article used a tried and tested scientifically-researched process that proved to be successful in some other social science studies to construct a model to measure business performance. The study, firstly, identified the relevant antecedents of business performance in higher education, and the, secondly, developed relevant measuring criteria (85 in total) for each antecedent. Thirdly, the validity of the measuring criteria was empirically established, and finally, the reliability of each antecedent was calculated. From the development of the empirical model it can thus be concluded that:

- The process followed to identify the sixteen business performance antecedents and then to develop the respective measuring criteria once again proves to be scientifically sound.
- Using exploratory factors analysis to determine if all measuring criteria actually contribute towards calculating each antecedent, respectively, the analysis continued and scrutinised the sample adequacy, variance explained and reliability of each antecedent. Based on these results, the sample is adequate, the antecedents of the model are reliable and the sphericity between the variables is satisfactory.
- Based on the first two conclusions, it is also concluded that the model to measurement business performance for a private higher education institution in South Africa is valid.

SUMMARY

This article focused on the actual measurement of business performance antecedents in a private higher education institution in South Africa. The results showed that the typical profiles of the respondents in this sample are 20-39 years of age and just over 60% of the respondents are female. A significant number of them have been employed for between less than one year and two years. This article presents a usable validated model to measure the business performance antecedents in private higher education institutions in South Africa. Further, this model is relevant to managers, directors and owners of private higher education institutions as a tool that can be used to measure the business performance of a private higher education institution in South Africa.

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CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This is the last chapter in this study. This study has been written in the article format, and the final chapter is a summary of the entire study; brief summaries of the four articles from this study are also included.

The chapter also makes conclusions from the study and further results in providing recommendations about its findings. As a result of the article format being used for this thesis, this permitted for conclusions and recommendations to be made after each article regarding the manner in which the specific issues may be dealt with using the results in each article. This implies that comprehensive conclusions and recommendations are made in each article; consequently, they are not repeated here in this final chapter. Resultant is that the conclusions and recommendations presented in this chapter are broad about the wider study and aim not to repeat the conclusions and recommendations offered in the individual articles. The conclusions determined and recommendations made are presented pairwise. The meaning is that a recommendation about an explicit conclusion is made to address that conclusion exactly; the numbering of the conclusions and recommendations are, therefore, related.

Further, the chapter also identifies possible areas for future research and investigation that might result from this study. The chapter ends the study with a final summary.

6.2 OVERVIEW OF THE STUDY

The primary objective of this study was to develop a theoretical model to measure the business performance of a private higher education institution in South Africa. To develop the theoretical model to measure business performance, the antecedents had to be identified. The review of the literature allowed for the antecedents and measuring criteria, to be identified. Various factors were looked at during this study to identify and scientifically

determine the business performance antecedents. The next step was to detailed analyses of each antecedent which resulted identifying the measuring criteria. This resulted in development of the theoretical model which was then empirically validated through the use of appropriate statistical criteria. Finally, this study presents a validated functional model to measure the business performance of a private higher education institution in South Africa. The summary and contribution made by each of the articles follow.

6.2.1 Chapter 2: Article 1

The primary objective of this paper was to analyse the business environment private higher education institutions function in. Further, the secondary objectives were to provide an overview of the public higher education and private higher education in South Africa; and identify and discuss the relevant role-players in PHEI.

Economic growth, development and advancement are achieved by investing in higher education by any country. Higher education is further a driver of innovation and change. Africa has a growing youth population and any many governments have difficulty in meeting the demand for higher education. Private higher education institutions in South Africa (and around the world) play an important role to meet educational demand. This article scrutinised the South African private higher education institutions' business environment. The article highlighted that there is an increase in demand for higher education and with this increased demand government cannot fulfil this demand and this creates a business opportunity for private higher education institutions to take advantage of. However, the barriers to entry are high to enter this education market and requires that private higher education providers should understand this highly controlled business environment and its role-players.

Private higher education has to comply with the rules and regulations and accreditation standards of government due to the education laws, standards and other government compliance factors in place in the higher education sector to be successful. The various role-players that impact on private higher education includes the Department of Higher Education and Training, Council for Higher Education, South African Quality Authority, students and public and private education providers as competitors. Macro-environmental factors also

play a role and these include private investors, the local and global economy, online learning platforms and infrastructure, professional bodies and the demand for higher education.

The article provides higher education institutions with a fair understanding of the higher education environment in South Africa and further the opportunities that exist in the education market. This article attempts to provide the essential elements that managers and owners of private higher education are required to be aware of and further to develop a framework to deal with these challenges and opportunities that the higher education landscaper has to offer; ultimately to make a difference in the South African economy.

6.2.2 Chapter 3: Article 2

The primary objective of this study was to develop a theoretical model to measure business performance of PHEIs. In order to achieve this a literature review was conducted to identify the relevant business performance antecedents, determine the measuring criteria which are relevant to the antecedents in the higher education institution environment and thereafter empirically determine the relevance of the antecedents and their measuring criteria; and finally, theoretically confirm the relevance of each of the selected antecedents.

Private higher education businesses are impacted by various factors which include lack of trust from the public, complying with rules and regulations, competition from other providers, government and the growth of state-funded public institutions even though there is demand for higher education in the South African market. For a successful business performance of private higher education institutions, the article looks at identifying and measuring the key business performance indicators. The study identified these antecedents and measuring criteria to measure the business performance of private higher education institutions successfully; after that developing a model for private higher education institutions to use to better manage their business performance. The article identified various business performance antecedents from the literature and further reduced by structured interviews with executives and group-interaction using the meta-technique analysis which identified antecedents relevant to the business performance of private higher education institutions. The measuring criteria developed for these factors resulted in creating a usable model to

measure business performance of private higher education institutions, which should improve efficiency and effectiveness and finally result in providing a competitive edge in South African higher education. The article identified 15 important antecedents as well as the measuring criteria. The article concludes with the criteria which can now be structured into a questionnaire to measure the performance of a PHEI in South Africa.

6.2.3 Chapter 4: Article 3

This article focused on a model to measure the business performance of a private higher education institution in South Africa. In this regard, a theoretical study on business performance antecedents was conducted; after that to statistically validate the respective theoretical measuring criteria about the business performance antecedents. Further, a demographic profile of the respondents was compiled, the next step was to measure the business performance antecedents; after that the identification of significant correlations that may exist between the antecedents and finally the article presented a model to measure business performance in private higher education in South Africa. This article also aims to determine if the demographic variables influence the business performance of a private higher education institution in South Africa. The final model has a total of fifteen business performance antecedents. These are Sales, Growth, Profitability, Technology, Customer, Innovation, Service, Leadership, Return on investment, Stakeholders, Society, Quality, Marketing, Communication, Legality, and General measures of business performance. The results of this study are valuable to business leaders and academics involved in private higher education, as well as investors in private higher education to determine the business performance antecedents that are necessary to achieve a successful private higher education institution. Researchers and scholars will find this paper valuable if they intend to explore business performance models further.

6.2.4 Chapter 5: Article 4

In this article, the latent variables are identified and embedded within the model to measure the performance of private business schools. Through the quantitative research design, a total of 247 questionnaires were administered to private business school supervisors and managers, which used a five-point Likert scale and finally analysed. Using exploratory factor

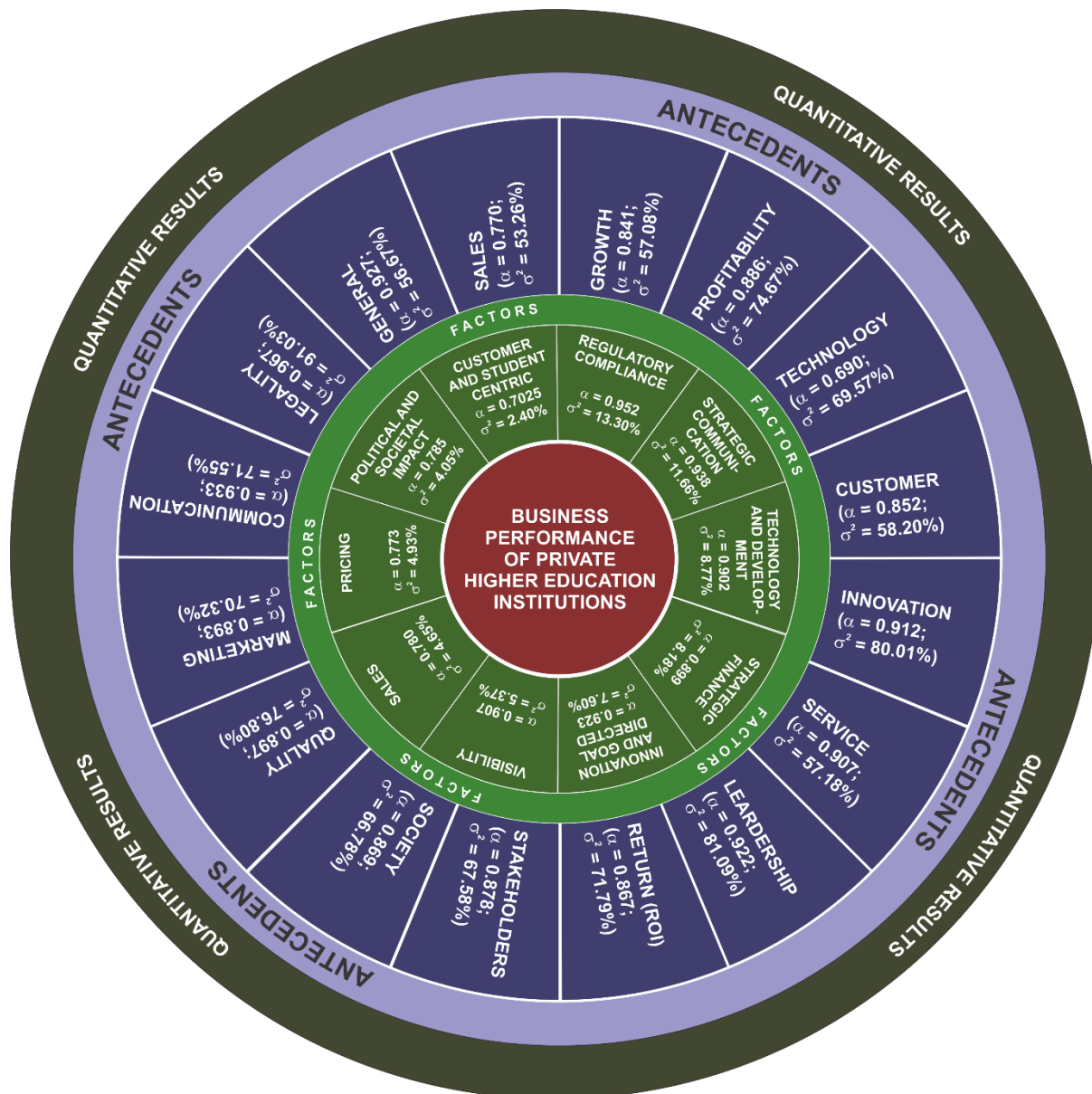
analysis, ten latent variables (or factors) were identified explaining a cumulative variance of 70.56%. These factors are Regulatory compliance, Strategic communication, Educational technology stack, Strategic finance, Organisational Development, Customer orientation, Sales, Pricing, Socio political influence and Market focus. The study also succeeded to simplify measuring performance by eliminating 26 questions with low factor loadings (<0.40) or those with strong dual-loadings from the questionnaire while retaining satisfactory reliability (Cronbach alpha 0.974), sample adequacy (0.926) and variance explained.

The article, therefore, presents a usable validated model to measure business performance in private higher education institutions in South Africa. This model also has a strong theoretical foundation for academia involved in future business performance measures research projects. The model, therefore, is appropriate to measure business performance in private higher education in South Africa. This model can be used as is by private higher education institutions managers and investors to determine whether the desired business performance has been achieved or not. Researchers and academia could also benefit from the contribution of the study; either to build on business performance of private business schools or in adopting the methodology employed in this study.

6.3 AN INTEGRATED MODEL TO MEASURE BUSINESS PERFORMANCE IN A PRIVATE HIGHER EDUCATION INSTITUTION

The model for this study was developed through a series of stages. The articles, as shown above (see Section 6.2), resulted in the final model to measure business performance of a private higher education institution in South Africa. The model comprises business performance antecedents obtained through the literature study and retained once the empirical scrutiny was concluded and measuring antecedents and by identifying the latent variables embedded in the data using exploratory factors analysis. This model is shown in Figure 6.1.

FIGURE 6. 1: AN INTEGRATED MODEL TO MEASURE BUSINESS PERFORMANCE IN A PRIVATE HIGHER EDUCATION INSTITUTION



The initial antecedents in the model was identified from a literature study in the higher education landscape, specifically regarding business performance measures that impact on a business. Once these were identified, the theoretical model was constructed with fifteen antecedents and its respective measuring criteria. A questionnaire was then developed and administered to managers and supervisors in a private higher education institution in South

Africa. After that, the results were analysed using the exploratory factor analysis and ten factors were identified. These factors (measuring latent variables of business performance) and the fifteen antecedents (measuring business performance) appears in the final model to measure business performance of a private higher education institution in South Africa. The model also shows the respective variance explained and the reliability of each antecedent and factor. All antecedents and factors have high reliability coefficients (Cronbach alpha exceeds 0.70). In practice, this means that the model possesses the ability to be applied in similar application settings to measure business performance. This is because the factors and antecedents show a high probability to present themselves in repetitive studies of a similar nature (Gaskin, 2014); this indicates that the model is suitable for measuring business performance of other private higher education institutions.

The model displays that business performance in a private higher education institution in South Africa with all the challenges and opportunities that exist highlight that *Regulatory compliance* is the most important factor (exceeding 13% of importance) to manage a private higher education institution in South Africa. *Regular communication* is considered as the next most important factor (exceeding the 10% of importance) while *Technology and development* are considered important (exceeding the 8% of importance). Of note is that *Strategic finance* is less important (just over the 8% level of importance). *Innovation and goal directed* is a factor (exceeding 7% of importance). *Visibility* as a factor exceeds 5% of importance while *Sales, Pricing* and *Political and societal impact* as factors (exceed 4% of importance). The least most important *Student and customer centric* (exceed 2% of importance).

This model constitutes a practical tool for directors, managers and investors in private higher education to operationalise to determine the business performance measures required in private higher education, to remain competitive and relevant in the 21st century business environment which is made up of various complexities, challenges and opportunities.

6.4 CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations below are discussed and recommendations follow after each conclusion numerically. As an example: *Recommendation 1* would relate to the conclusion(s) drawn in *Conclusion 1*. Specific conclusions and recommendations were made after every article and are, therefore, not repeated in this chapter. This chapter thus presents general conclusions and recommendations not addressed specifically in the articles.

6.4.1 Research Methodology

The conclusions and recommendations about the research methodology and statistical analysis used in the study are detailed below.

Conclusion 1:

A rigorous solid literature study which is current and relevant affords a results concrete foundation for the development and delivery of the rest of the study. The solid literature review this study allowed for a better understanding of the research problem and provided a solid theoretical outline for the empirical study to measure the business performance in a private higher education institution in South Africa. The literature review brought in the latest factors and theories as well as concepts on business performance in private higher education and business in general due to the highly complex and dynamic 21st century business environment that exists. It can be concluded that this sound theoretical foundation resulted in the required quality and rigour, for the study.

Recommendation 1:

The recommendation is that future researchers use this methodology to have a solid literature foundation and theoretical framework. This recommendation extends to other fields of study and is not limited to business performance in private higher education institutions in South Africa.

Conclusion 2:

Further to Conclusion 1, the solid literature study was essential and valuable to construct the measuring instrument by identifying the business performance factors and identifying the

respective measuring criteria for business performance. The conclusion is that a strong literature review in this study resulted in the development of a comprehensive and valid questionnaire for empirical research.

Recommendation 2:

A solid and sound theoretical framework is recommended to form the base to develop the measuring instrument. This is particularly valuable when no existing research instruments are available for a researcher to use or when researchers are required to develop specific questionnaires. Therefore, the theoretical framework of this study supports the validity and dimensions the previous research in the field in a comprehensive, methodical and rigorous way.

Conclusion 3:

The statistical analyses engaged in this study served the objectives of this study well. In consultation with a statistical specialist at North-West University and the use of the statistical analysis programme (IBM SPSS Version 24) ensured the integrity of the empirical results and sound interpretation of the results. The various statistical techniques and methodology employed resulted in the study to simplify the model to measure business performance in a private higher education institution in South Africa.

From the statistical analyses it is concluded that:

1. The Kaiser-Meyer-Olkin (KMO) measure of sample adequacy indicated that the data collected from the sample in this study were sufficient and also suitable for advanced statistical techniques such as the multivariate statistic exploratory factor analysis. The KMO values (≥ 0.70) indicate that satisfactory sample adequacy has been achieved.
2. Bartlett's test of sphericity, renders a verdict on the suitability of the data to be subjected to exploratory factor analysis. Bartlett's sphericity values are below the required value of 0.05. This means that acceptable low inter-correlations between the variables exist and that the data are suitable to perform exploratory factor analysis.

3. The Cronbach Alpha coefficients were calculated for each of the antecedents and factors to determine reliability. The results showed that a high degree of reliability exists in the data that were collected by the measuring instrument.
4. Exploratory Factor Analysis was used to validate the measuring criteria of each of the business performance antecedents in a private higher education institution in South Africa.
5. Pearson Correlation Coefficients indicated high correlation coefficients between all the individual factors.

From the empirical analysis in this study, it can be concluded that the:

1. Questionnaire developed and used to collect the data was valid;
2. Data were highly reliable. As a result, the antecedents and factors are both reliable variables to use in performance measurement;
3. Sample drawn was proven statistically adequate to use for analysis;
4. Data have low sphericity coefficients and this allows for multivariate analysis; and that the
5. Factors are related and deal with one core issue, which is that of business performance.

Recommendation 3:

Further to the empirical results and in support of Conclusion 3, it is recommended that other researchers:

1. Employ a professional statistician who would be able to guide them towards selecting appropriate statistical techniques to achieve their research goals set;
2. Use professional statistical support to correctly analyse, interpret and apply the results to address the research objectives;
3. Use a specialised statistical software package (such as IBM SPSS) to analyse the data correctly; and
4. Ensure that the statistician checks the final document and confirms that the results are correctly recorded and applied.

Finally, the recommendation is that the methodology used in this study could be replicated in other studies of a similar nature. To do this compliance with the three preceding recommendations above should be accounted.

6.4.2 Results

The conclusions and recommendations about the results of this study are addressed below.

Conclusion 4 (Article 1):

The conclusion of this article indicates that the higher education and education sector in general in South Africa (and Africa) is not able to meet the needs of the citizens. Various factors have been identified which include budgetary constraints, political factors and both micro and macro factors make it difficult for governments to provide sufficient public education facilities. The result is that a market opportunity exists for private higher education institutions to enter the higher education space and contribute positively to South Africa's and Africa's educational needs and economic growth.

To enter the private higher education sector which is highly regulated and has stringent quality control measures requires that private higher education institutions register with the necessary authorities as well as comply with accreditation requirements for the programmes being offered. Positively, the DHET and its mechanisms ensure that South African institutions, private or public, do offer qualifications of quality, ensures standards and control are in place to offer the best higher education programmes.

Recommendation 4 (Article 1):

It was recommended that further literature review be undertaken to understand better the higher education environment and competitors in South Africa after the fees-must-fall campaign and the free higher education being made available, as well as to obtain a view of the higher education environment in other African countries. This assisted in compiling the questionnaire and their measuring criteria, particularly concerning the higher education landscape.

Conclusion 5 (Article 2):

This article through the literature review, interviews and the group session concluded that there were 15 important antecedents. The measuring criteria for the antecedents have also been determined. These criteria can now be structured into a questionnaire to measure the performance of a PHEI in South Africa. This theoretical model combines both theory and managerial experience. Various theoretical studies further supported the managerial views identified by the qualitative research. At this stage, the model is a theoretical model and this model is to be applied empirically to collect the data, validate the model, remove or omit non-significant criteria and finally to develop a purified model to measure business performance of PHEIs. It is therefore concluded that this model of fifteen antecedents can serve as the empirical structure of a measuring instrument or questionnaire that is to be used to measure business performance of PHEIs in South Africa.

Recommendation 5 (Article 2):

It was recommended that:

- 1 Further research is undertaken to support these fifteen important antecedents as valid measures of business performance. A new questionnaire may be developed with their respective measuring criteria; and that
- 2 The measuring criteria and antecedents be empirically analysed to determine if this model can be used as a managerial tool (as done in Article 3)

This model can only then be used to measure business performance in PHEIs.

Conclusion 6 (Article 3):

This study focused on the actual measurement of business performance antecedents in a private higher education institution in South Africa to develop the appropriate model. 85 measuring criteria were used and evaluated. A literature review was conducted on higher education and private higher education to establish a broad theoretical framework. This model was then administered and statistically analysed to determine if the selected measuring criteria actually do measure the specific business performance antecedents

which lead to the development of a model to measure business performance in private higher education in South Africa. The study determined that there were significant correlations between the business performance antecedents.

Recommendation 6 (Article 3):

It was recommended that the latest literature review be conducted to determine if there are any other antecedents that may have an impact on business performance in PHEIs. Further analysis would determine if there are any correlations and any factors that may be significant or not significant.

Conclusion 7 (Article 4):

This study scientifically reduced the 15 important antecedents to a more manageable ten factors, measured by 59 criteria (thereby reducing the measuring criteria by 9). It is thus concluded that the study was able to simplify the model to measure business performance in a private higher education institution in South Africa significantly and that this model is of value to business school managers and leaders, directors and investors in higher education.

From the above, it is concluded that the simplification of the model now enables an easier operationalisation of the model in the private higher education and higher education sector of the market thus enabling academic research to be used in practice.

Recommendation 7:

Since this article presents a usable validated model to measure business performance in a private higher education institution in South Africa, it is therefore recommended that the model be used as a:

1. Managerial tool to measure the business performance in private higher education institutions.
2. Tool to plan, assess and monitor the business performance factors, initiatives and activities.
3. Concrete theoretical basis by researchers and theoreticians in their future business performance related research projects.

6.5 AREAS FOR FUTURE RESEARCH

The following broad areas for future research have been identified:

- A further in-depth analysis and investigation of any or all of the fifteen factors of the model to measure business performance in private higher education could be worthy of further investigation.
- This study identified limited meaningful correlations between the business performance antecedents and demographic variables. As a result, a future study could to investigate if other meaningful correlations exist between an extended range of demographic variables and business performance antecedents. Such a study could be of value to managers, researchers and academia to better understand employees' role in business performance of PHEIs.
- A study if business performance measures vary significantly between different genders of supervisors, directors and managers in private higher education could be interesting.
- A study of business performance measures in comparison with a specific international private higher education institution as compared to the private higher education institutions in South Africa could afford deeper insights. This is due to the complex and rapidly changing higher education landscape throughout the world, and this could be valuable to directors, managers and investors in private higher education.

6.6 SUMMARY

The contribution of the study culminated in the development of a model to measure the business performance measures in a private higher education institution in South Africa. This was the primary objective of the study, and consequently, the study reached its objectives.

This final chapter discussed the highlights of the four articles through a summary of each, showing the comprehensive development of the study. Further to the conclusions and

recommendations presented in the individual articles, this chapter provided further generalised conclusions and the related recommendations.

As this study developed a conceptual model to measure business performance measures in a private higher education institution in South Africa, the results and conclusions of this study can shape, inform and refine future research and investigation into studies focusing on scientifically sound business performance models in private higher education.

Further research in this area, is required to assist higher education institutions, governments and researchers to identify business performance measures that are required in order that private higher education and public higher education in general throughout South Africa and Africa can be better planned and delivered to meet the growing need for access, quality and affordable higher education. The ultimate result is to eradicate poverty, create hope and prosperity and finally uplift the people of Africa to contribute to the rest of the world.

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APPENDIX A: QUESTIONNAIRE

QUESTIONNAIRE

A GENERAL INFORMATION

Please mark your selection with an (X)

1. Please indicate your gender

Male		1
Female		2

2. Please indicate to which age category you belong (for statistical purposes only)

Less than 20 years		1
20 – 29 years		2
30 – 39 years		3
40 – 49 years		4
50 – 59 years		5
60 years or more		6

3. How long have you been working at the institution? _____ years

4. What is the name of the institution you are working for? _____

5. How many years of management experience do you have

Less than 2 years		1
2 – 5 years		2
6 – 10 years		3
More than 10 years		4

B COMPONENTS OF INSTITUTION

Please answer the following questions based on your own perceptions. There are no right or wrong answers. Please indicate to what extent you **agree** with the following statements: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, (5) strongly agree

A SALES

The institution I work for...	Disagree					Agree				
A1 Has successfully been achieving business performance through its competitive pricing policy										
A2 Has successfully been achieving sales targets	1	2	3	4	5					
A3 Has increased the number of short courses on offer	1	2	3	4	5					
A4 Has increased the number of new students year on year	1	2	3	4	5					
A5 Has increased the number of returning students year-on-year	1	2	3	4	5					

B GROWTH

The institution I work for...	Disagree					Agree				
B1 Has successfully undertaken various branding and marketing activates e.g. open days, school campaigns that lead to growth	1	2	3	4	5					
B2 Has been increasing number of programmes year after year	1	2	3	4	5					
B3 Has been successfully increasing its market share in SA	1	2	3	4	5					
B4 Has been successfully increasing its market share in SADC	1	2	3	4	5					
B5 Has national and international partnerships for growth	1	2	3	4	5					
B6 Leverages alumni network to achieve growth	1	2	3	4	5					

C PROFITABILITY

The institution I work for...	Disagree					Agree				
C1 Has increased revenue year on year	1	2	3	4	5					
C2 Is financially sustainable	1	2	3	4	5					
C3 Has systems in place to control and monitor expenses	1	2	3	4	5					
C4 Is constantly reviewing strategies in order to be profitable	1	2	3	4	5					

D. TECHNOLOGY

The institution I work for...	Disagree					Agree				
D1 Is equipped with an effective MIS for its operations.	1	2	3	4	5					
D2 Is equipped with an effective LMS for its student learning	1	2	3	4	5					
D3 is equipped with an on-line platform to deliver programmes	1	2	3	4	5					
D4 Uses latest technology to attract and communicate with students e.g. Social media platforms, website etc.	1	2	3	4	5					
D5 Has CRM software to track student enrolment	1	2	3	4	5					

E. CUSTOMER

The institution I work for...	Disagree					Agree				
E1 Offers value for money programmes	1	2	3	4	5					
E2 Is continually improving to student and customer satisfaction	1	2	3	4	5					
E3 Attracts students who want to study via distance education	1	2	3	4	5					
E4 Attracts students who want to study via the blended mode of delivery (contact and distance)	1	2	3	4	5					
E5 Offers programmes which target the customers or students' needs	1	2	3	4	5					
E6 Provides good customer service to students	1	2	3	4	5					

F. INNOVATION

The institution I work for...	Disagree			Agree	
F1 Is continually developing new programmes to offer students	1	2	3	4	5
F2 Is continuously striving for ways and means to meet student needs and wants	1	2	3	4	5
F3 Is innovative in its teaching and learning approach	1	2	3	4	5
F4 Is embraces innovation	1	2	3	4	5
F5 Uses an online platform to deliver the programmes	1	2	3	4	5

G. SERVICE

The institution I work for...	Disagree			Agree	
F1 Has excellent levels of service delivery to students	1	2	3	4	5
F2 Is continuously striving to improve service	1	2	3	4	5
F3 Meets the needs and wants of students	1	2	3	4	5
F4 Is customer centric in its approach to students	1	2	3	4	5

F. LEADERSHIP

The leadership in the institution I work for...	Disagree			Agree	
F1 Embraces organisational change	1	2	3	4	5
F2 Is goal directed in achieving outcomes	1	2	3	4	5
F3 Allows for innovation in the institution	1	2	3	4	5
F4 Is open to organisational change	1	2	3	4	5
F5 Is passionate on meeting organisational goals	1	2	3	4	5

G. RETURN ON INVESTMENT

The institution I work for...	Disagree			Agree	
G1 Monitors expenses and revenue	1	2	3	4	5
G2 Is profitable and providers a return to the founder	1	2	3	4	5
G3 Is target driven to achieve outcomes	1	2	3	4	5

H. STAKEHOLDERS

The institution I work for ...	Disagree					Agree				
H1 Is influenced by societal changes	1	2	3	4	5					
H2 Complies with government regulations and policies	1	2	3	4	5					
H3 Complies with professional body rules and regulations	1	2	3	4	5					
H4 Complies with CHE quality standards	1	2	3	4	5					
H5 Focuses on the direction provided by the shareholders	1	2	3	4	5					

I. SOCIETY

The institution I work for ...	Disagree					Agree				
I1 Is positively perceived in the community	1	2	3	4	5					
I2 Has an impact on the community and society it serves	1	2	3	4	5					
I3 Is influenced by political changes in the countries it operates in	1	2	3	4	5					
I4 Creates the next generation of African leaders and professionals	1	2	3	4	5					
I5 The public has embraced private higher education providers	1	2	3	4	5					

J. QUALITY

The institution I work for ...	Disagree					Agree				
J1 Has a dedicated quality assurance directorate	1	2	3	4	5					
J2 Ensures that students expectations are met	1	2	3	4	5					
J3 Complies with all CHE and DHET quality assurance policies and procedures	1	2	3	4	5					
J4 Ensures that teaching and learning is of quality	1	2	3	4	5					
J5 Quality assurance assures that programmes are fit for purpose	1	2	3	4	5					

K. MARKETING

The institution I work for ...	Disagree			Agree	
K1 Uses social media and online platforms to attract students	1	2	3	4	5
K2 Has an effective website to market the institution	1	2	3	4	5
K3 Has developed a strong brand in the market	1	2	3	4	5
K4 Uses software to track and evaluate marketing efforts	1	2	3	4	5
K5 Has excellent infrastructure	1	2	3	4	5

L. COMMUNICATION

The institution I work for ...	Disagree			Agree	
L1 provides updated communication with regards to course outline, assignment submission and examination requirements	1	2	3	4	5
L2 provides tutor or lecturer feedback to students	1	2	3	4	5
L3 Conducts surveys to understand the experience of the students	1	2	3	4	5
L4 Is in constant contact with students	1	2	3	4	5
L5 Communicates timely and personally with the student	1	2	3	4	5

M. LEGALITY

The institution I work for ...	Disagree			Agree	
M1 Complies with all rules and regulations of the CHE	1	2	3	4	5
M2 Complies with the financial and legal requirements of the country	1	2	3	4	5
M3 Is a registered and a legal company	1	2	3	4	5
M4 Complies with all rules and regulations of DHET	1	2	3	4	5
M5 Complies with all rules and regulations of SAQA	1	2	3	4	5

**N. MEASURING THE BUSINESS PERFORMANCE OF PRIVATE HIGHER EDUCATION
(GENERAL)**

The institution I work for ...	Disagree		Agree		
N1 Has successfully been achieving business performance through implementing an efficient and effective information technological system	1	2	3	4	5
N2 Has successfully been achieving business performance through a supportive Human resources training and development programme for its staff	1	2	3	4	5
N3 Has successfully been achieving business performance through its competitive pricing policy	1	2	3	4	5
N4 Has successfully been achieving business performance through engagement in the promotional campaigns of higher education	1	2	3	4	5
N5 Has successfully been achieving business performance through the institutions culture	1	2	3	4	5
N6 Strongly thinks that a more flexible regulatory framework will lead to better business performance of the institution	1	2	3	4	5
N7 Has successfully been achieving business performance through the implementation of adequate and excellent infrastructure for private higher education	1	2	3	4	5
N8 Has successfully been achieving business performance by being constantly accessible to students	1	2	3	4	5
N9 Has successfully been achieving business performance by portraying a professional image of its staff	1	2	3	4	5
N10 Has successfully been achieving business performance by being trustworthy to their students	1	2	3	4	5
N11 Has successfully been achieving business performance by educating their students on the concepts, benefits and importance of higher education	1	2	3	4	5
N12 Has successfully been achieving business performance through effective communication	1	2	3	4	5
N13 Has successfully been achieving business performance by processing efficiently all documentation of students	1	2	3	4	5

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

APPENDIX B: LETTER FROM LANGUAGE EDITOR